Service Manual

DEX-P9/UC

ORDER NO.
CRT2687

MULTI-CD/DVD CONTROL CD PLAYER WITH FM/AM TUNER

DEX-P9 UC

MULTI-CD/DVD/DAB CONTROL CD PLAYER WITH RDS TUNER

DEX-P9R EW

COMPACT disc DIGITAL AUDIO

● **This service manual should be used together with the following manual(s):**

Model No.	Order No.	Mech. Module	Remarks
CX-961	CRT2503	H2	CD Mech. Module:Circuit Description, Mech.Description, Disassembly

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K-ZZA. JUNE 2001 Printed in Japan

● **Service Precautions**

1. For pickup unit(CXX1305) handling, please refer to"Disassembly"(see page 64).
   During replacement, handling precautions shall be taken to prevent an electrostatic discharge(protection by a short pin).
2. During disassembly, be sure to turn the power off since an internal IC might be destroyed when a connector is plugged or unplugged.
3. Please checking the grating after changing the service pickup unit(see page 58).

1. SAFETY INFORMATION

UC

CAUTION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer.
Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty.
If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.
Health & Safety Code Section 25249.6 - Proposition 65

EW

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer.
Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely; you should not risk trying to do so and refer the repair to a qualified service technician.

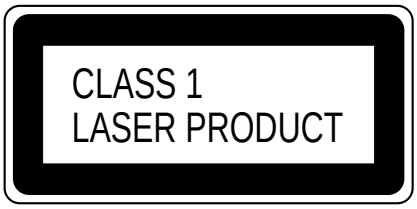
1. Safety Precautions for those who Service this Unit.

- **When checking or adjusting the emitting power of the laser diode exercise caution in order to get safe, reliable results.**

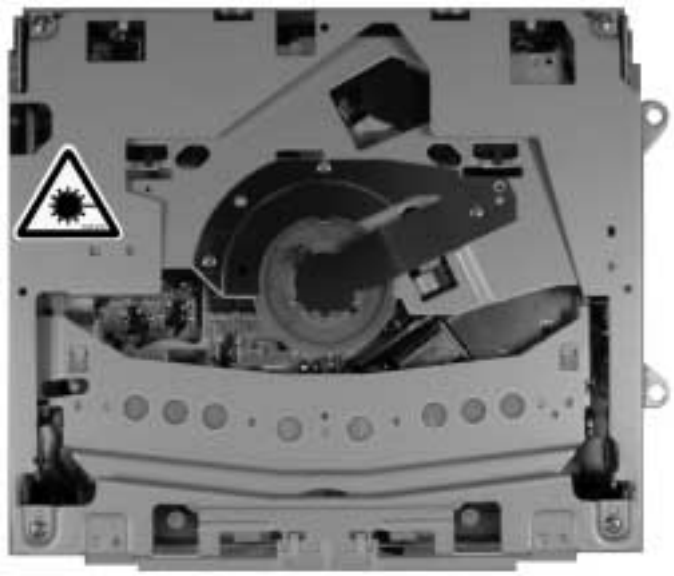
Caution:

1. During repair or tests, minimum distance of 13cm from the focus lens must be kept.
2. During repair or tests, do not view laser beam for 10 seconds or longer.

2. A "CLASS 1 LASER PRODUCT" label is affixed to the bottom of the player.



3. The triangular label is attached to the mechanism unit frame.

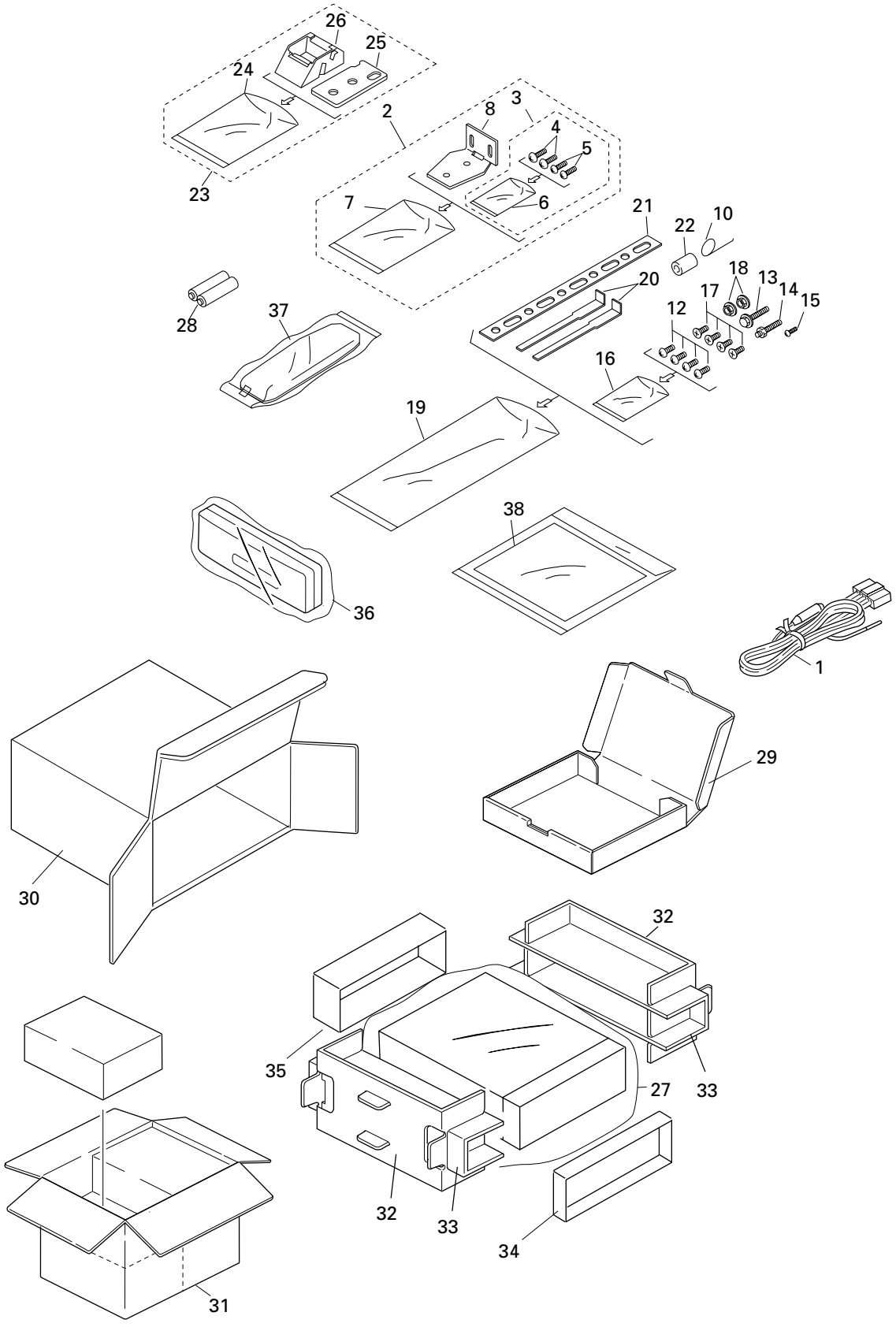


4. Specifications of Laser Diode

Specifications of laser radiation fields to which human access is possible during service.
Wavelength = 800 nanometers

2. EXPLODED VIEWS AND PARTS LIST

2.1 PACKING(DEX-P9/UC)



NOTE:

● Parts marked by "*" are generally unavailable because they are not in our Master Spare Parts List.

● Screws adjacent to ∇ mark on the product are used for disassembly.

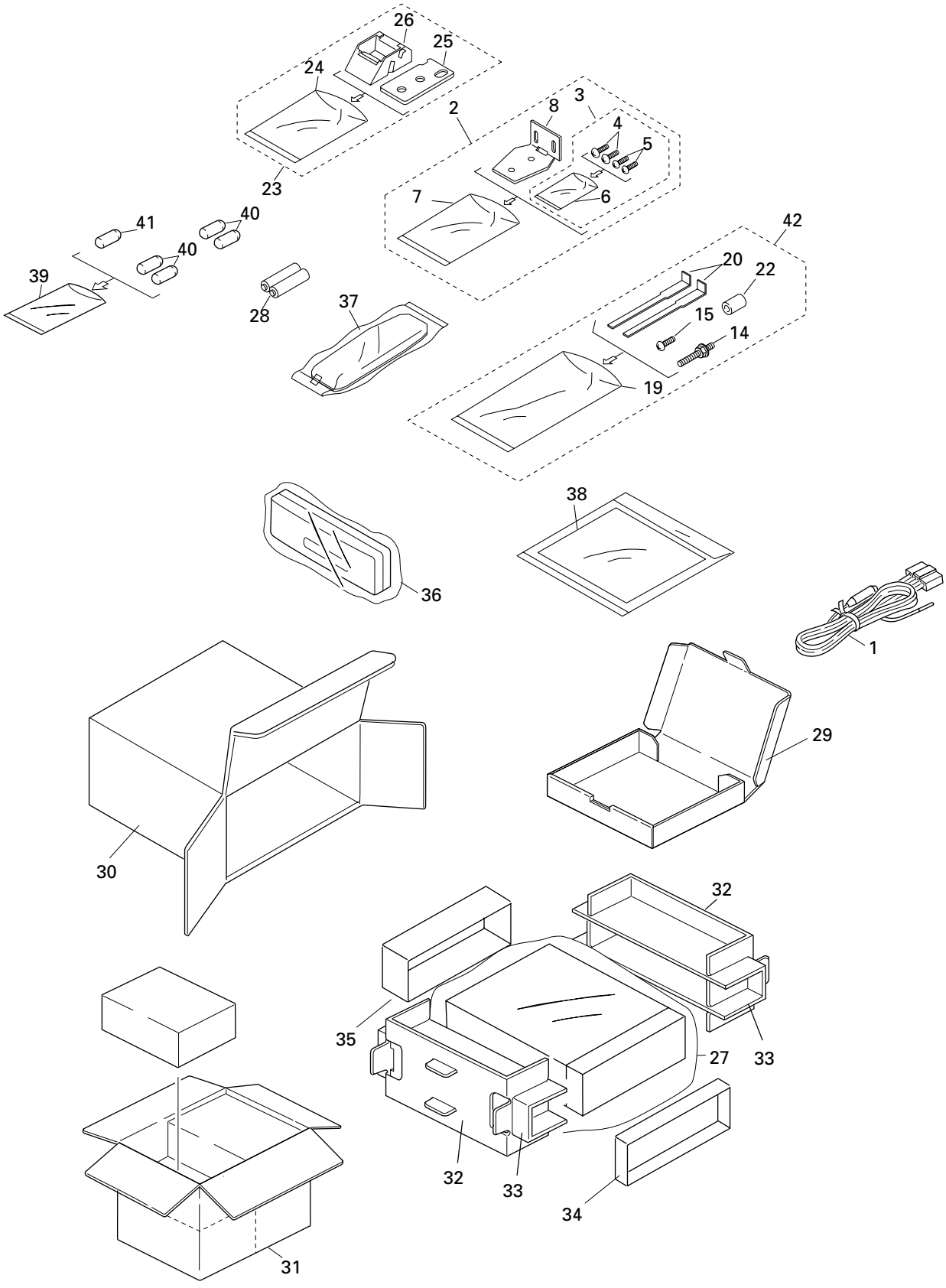
● PACKING SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Cord Assy	CDE6490
	2	Bracket Assy	CEA2346
	3	Screw Assy	CZE3198
	4	Screw	BNC40P120FZK
	5	Screw	BPZ30P100FZK
*	6	Polyethylene Bag	CEG-127
*	7	Polyethylene Bag	CZE3201
	8	Bracket	CZN6467
	9	•••••	
	10	Spring	CBH-865
	11	•••••	
	12	Screw	BMZ50P060FMC
	13	Screw	CBA-102
	14	Screw	CBA1002
	15	Screw(M2x6)	CBA1120
*	16	Polyethylene Bag	CEG-127
	17	Screw	CMZ50P060FMC
	18	Nut	NF50FMC
*	19	Polyethylene Bag	CEG-158
	20	Handle	CNC5395
	21	Strap	CNC5402
	22	Bush	CNV1917
	23	Base Assy	CEA2799
	24	Polyethylene Bag	CZE3188
*	25	Sheet	CZE3266
*	26	Base	CZN7669
	27	Polyethylene Bag	CEG1185
*	28	Battery	CEX1006
	29	Sub Carton	CHA3167
	30	Carton	CHG4395
	31	Contain Box	CHL4395
	32	Protector	CHP2383
	33	Protector	CHP2384
	34	Protector	CHP2385
	35	Protector	CHP2386
	36	Case Assy	CXB3520
	37	Remote Control Assy	CXB7434
	38-1	Owner's Manual	CRB1649
	38-2	Owner's Manual	CRB1650
*	38-3	Warranty Card	CRY1070
	38-4	Polyethylene Bag	CEG1116

● Owner's Manual

Model	Part No.	Language
DEX-P9/UC	CRB1649	English
	CRB1650	French

2.2 PACKING(DEX-P9R/EW)



NOTE:

- Parts marked by "*" are generally unavailable because they are not in our Master Spare Parts List.
- Screws adjacent to ∇ mark on the product are used for disassembly.

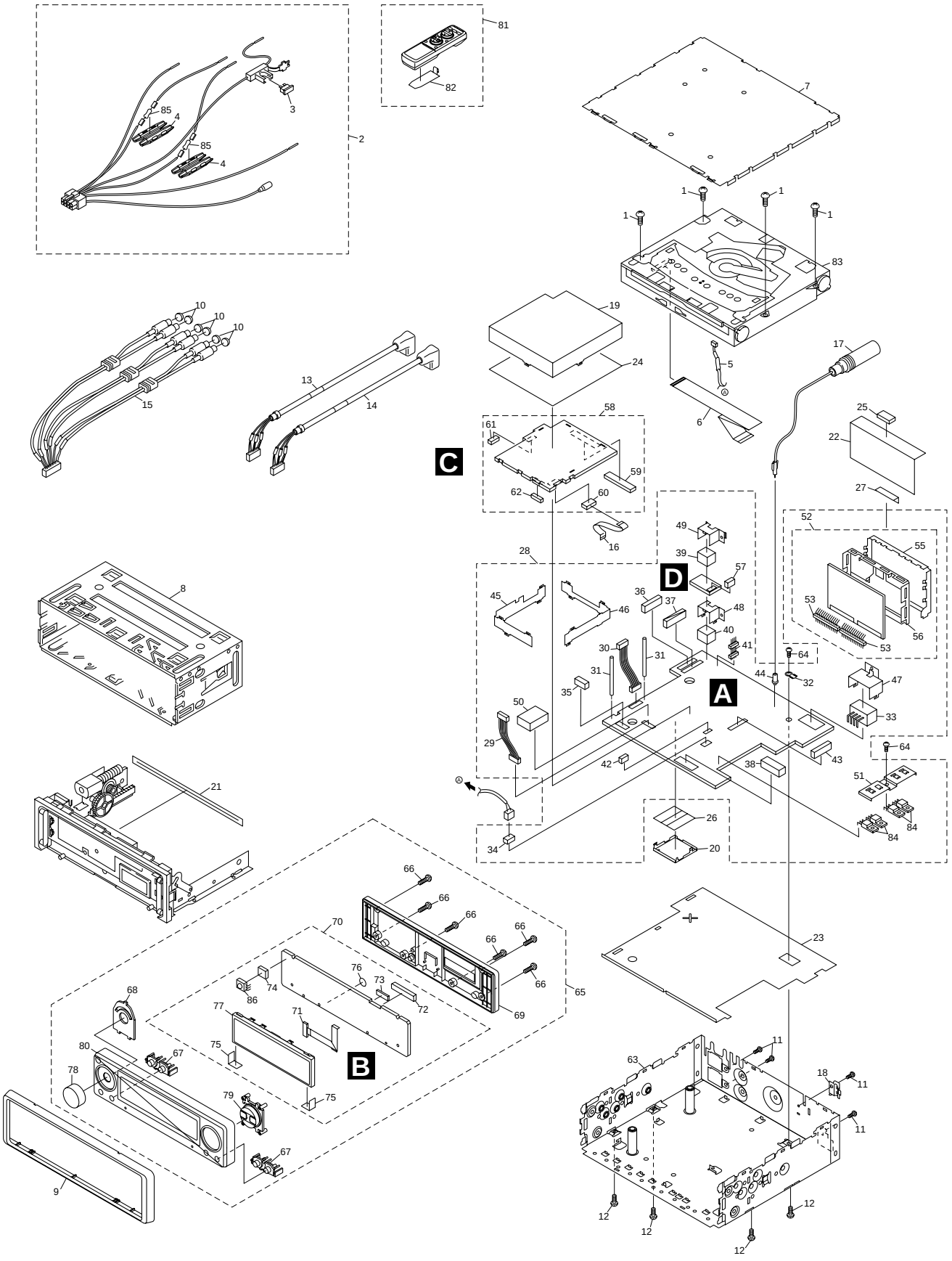
● PACKING SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Cord Assy	CDE6490
	2	Bracket Assy	CEA2346
	3	Screw Assy	CZE3198
	4	Screw	BNC40P120FZK
	5	Screw	BPZ30P100FZK
*	6	Polyethylene Bag	CEG-127
*	7	Polyethylene Bag	CZE3201
	8	Bracket	CZN6467
	9-13	•••••	
	14	Screw	CBA1002
	15	Screw(M2x6)	CBA1120
	16-18	•••••	
*	19	Polyethylene Bag	E36-615
	20	Handle	CNC5395
	21	•••••	
	22	Bush	CNV1917
	23	Base Assy	CEA2799
	24	Polyethylene Bag	CZE3188
*	25	Sheet	CZE3266
*	26	Base	CZN7669
*	27	Cover	CEG1088
*	28	Battery	CEX1006
	29	Sub Carton	CHA3167
	30	Carton	CHG4394
	31	Contain Box	CHL4394
	32	Protector	CHP2383
	33	Protector	CHP2384
	34	Protector	CHP2385
	35	Protector	CHP2386
	36	Case Assy	CXB3520
	37	Remote Control Assy	CXB7435
	38-1	Owner's Manual	CRB1643
	38-2	Owner's Manual	CRB1644
	38-3	Owner's Manual	CRB1645
	38-4	Owner's Manual	CRB1646
	38-5	Owner's Manual	CRB1647
	38-6	Owner's Manual	CRB1648
	38-7	Passport	CRY1013
*	38-8	Warranty Card	CRY1157
	38-9	Polyethylene Bag	CEG1116
	39	Polyethylene Bag	CEG1161
	40	Filter(Small)	CTX1054
*	41	Filter(Large)	CTX1060
	42	Accessory Assy	CEA2538

● Owner's Manual

Model	Part No.	Language
DEX-P9R/EW	CRB1643	English
	CRB1644	Spanish
	CRB1645	German
	CRB1646	French
	CRB1647	Italian
	CRB1648	Dutch

2.3 EXTERIOR(1)



(1) EXTERIOR(1) SECTION PARTS LIST

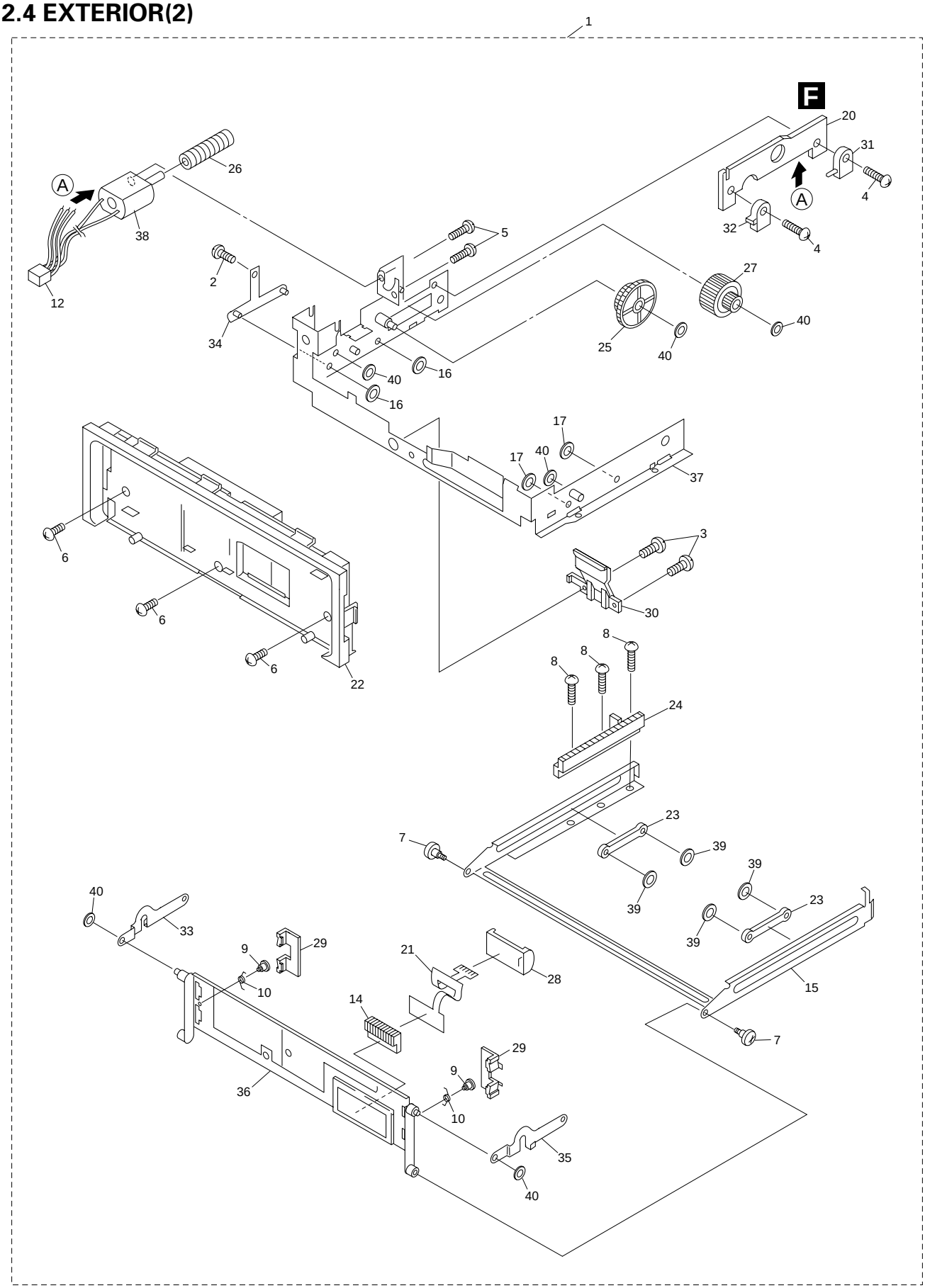
Mark	No.	Description	Part No.
	1	Screw	BSZ26P060FMC
	2	Cord Assy	CDE6490
	3	Fuse(4A)	CEK1001
	4	Cap	CNS1472
	5	Cord	CDE6493
	6	Flat Cable	CDE6627
	7	Case	CNB2708
	8	Holder	CNC8659
	9	Panel	CNS6610
	10	Cap	CNV6727
	11	Screw	BSZ26P050FCU
	12	Screw(M2x2.5)	CBA1447
	13	Cord(Blue)	CDE4107
	14	Cord(Black)	CDE4108
	15	Cord	CDE6506
	16	Flat Cable	CDE6716
	17	Antenna Cord	CDH1251
	18	Holder	CNC4861
	19	Shield	CNC9185
	20	Shield	CNC9634
	21	Cover	CNM6489
	22	Insulator	CNM7039
	23	Insulator	CNM7081
	24	Insulator	CNM7110
	25	Spacer	CNM7366
	26	Insulator	CNM7486
	27	Seal	CNM7598
	28	Audio Control Unit	See Contrast table(2)
	29	Connector(CN353)	CDE3970
	30	Connector(CN352)	CDE6628
	31	Clamper	CEF1007
	32	Terminal(CN401)	CKF1064
	33	Connector(CN901)	CKM1334
	34	Plug(CN652)	CKS-785
	35	Plug(CN851)	CKS-786
	36	Plug(CN101)	CKS1044
	37	Plug(CN102)	CKS1045
	38	Connector(CN801)	CKS1536
	39	Connector(CN172)	CKS1940
	40	Connector(CN171)	CKS2600
	41	Connector(CN174)	CKS2681
	42	Connector(CN351)	CKS3848
	43	Connector(CN651)	CKS4248
	44	Mini Pin Jack(CN451)	CKX1046
	45	Holder	CNC9186
	46	Holder	CNC9187
	47	Holder	CNC9188
	48	Holder	CNC9451
	49	Holder	CNC9452
	50	Shield	CNC9522
	51	Holder	CNC9556
	52	FM/AM Tuner Unit	See Contrast table(2)
	53	Connector(CN1, 2)	CKS4276
	54	•••••	
	55	Case	CNC8713
	56	Holder(SH1)	CNC8708
	57	Connector(CN173)	HKS-193
	58	Audio Unit	CWM7517
	59	Plug(CN1204)	CKS1246
	60	Connector(CN1202)	CKS1945
	61	Connector(CN1201)	CKS2195
	62	Connector(CN1203)	CKS2197
	63	Chassis Unit	See Contrast table(2)
	64	Screw	ISS26P055FUC
	65	Detach Grille Assy	See Contrast table(2)
	66	Screw	BPZ20P100FZK
	67	Button (SOURCE, DISPLAY)(BAND, EJECT)	CAC7110
	68	Cushion	CNM7548
*	69	Cover	CNS6364
	70	Keyboard Unit	CWM7534
	71	Flat Cable	CDE6700
	72	Connector(CN1881)	CKS4435
	73	Connector(CN1861)	CKS4438
	74	Spacer	CNM7371
	75	Spacer	CNM7397
	76	Seal	CNM7549
	77	OEL Module	MXK8015
	78	Knob Unit(VOLUME)	CXB6732
	79	Button Assy(▲/▼/◄/►)	CXB8135
	80	Sub Grille Assy	See Contrast table(2)
	81	Remote Control Assy	See Contrast table(2)
	82	Lower Case	See Contrast table(2)
	83	CD Mechanism Module(H2)	CXK5355
	84	Transistor(Q803, 921, 971, 998)	2SD2396
	85	Resistor	RS1/2PMF102J
	86	IC(IC1881)	SBX8035-H

(2) CONTRAST TABLE

DEX-P9/UC and DEX-P9R/EW are constructed the same except for the following:

Mark	No.	Symbol and Description	Part No. DEX-P9/UC	Part No. DEX-P9R/EW
	28	Audio Control Unit	CWM7514	CWM7515
	52	FM/AM Tuner Unit	CWE1605	CWE1604
	63	Chassis Unit	CXB6755	CXB6754
	65	Detach Grille Assy	CXB6703	CXB6704
	80	Sub Grille Assy	CXB7644	CXB7642
	81	Remote Control Assy	CXB7434	CXB7435
	82	Lower Case	CNS6673	CNS6674

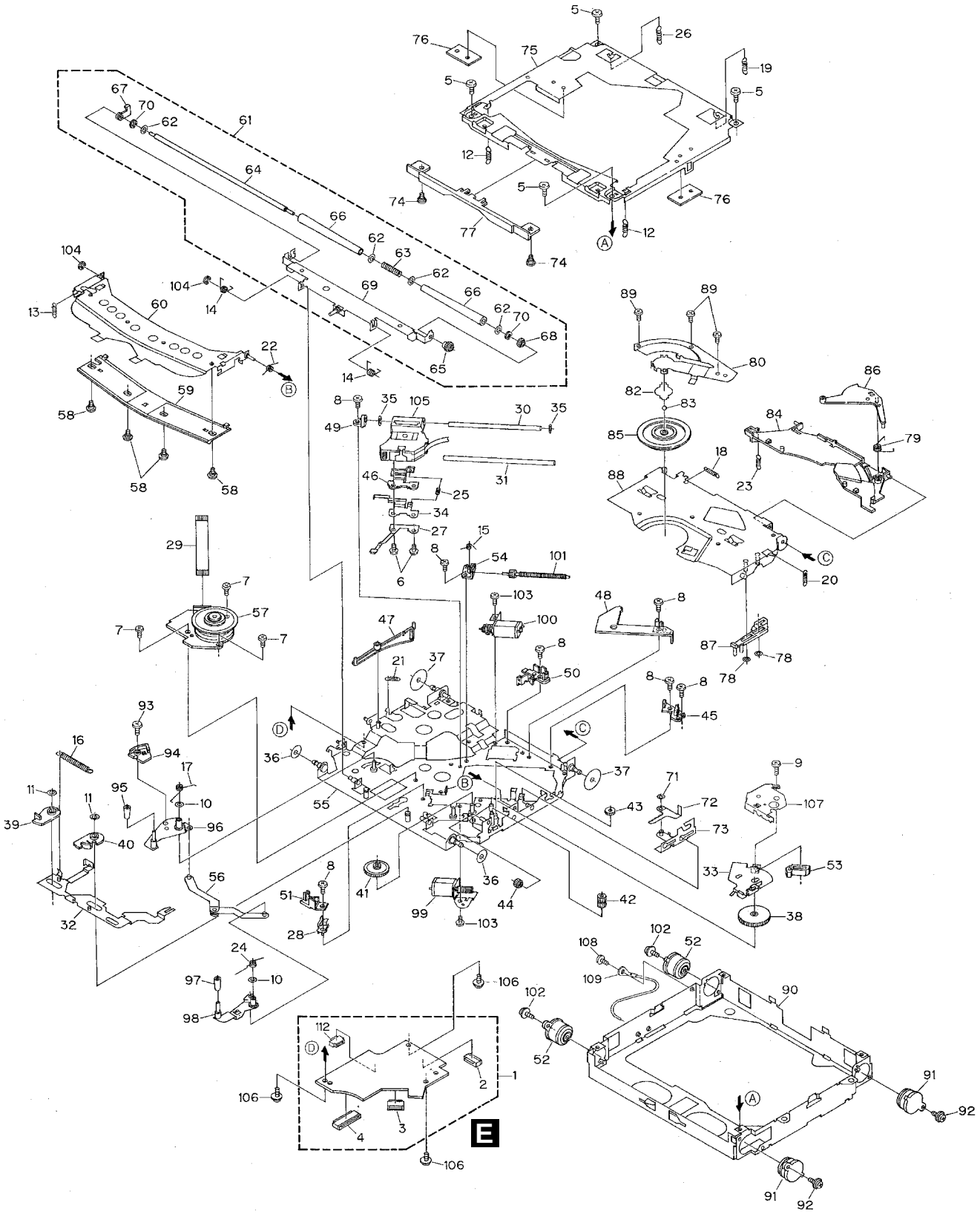
2.4 EXTERIOR(2)



● EXTERIOR(2) SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Panel Assy	CXB6725
	2	Screw	BMZ20P030FMC
	3	Screw	BPZ20P060FMC
	4	Screw(M2x7)	CBA1060
	5	Screw(M2x3)	CBA1061
	6	Screw(M2x3)	CBA1154
	7	Screw(M2x1.5)	CBA1430
	8	Screw(M1.4x4)	CBA1454
	9	Screw(M2x1.5)	CBA1528
	10	Spring	CBH2445
	11	•••••	
	12	Cord	CDE5960
	13	•••••	
	14	Connector	CKS4436
	15	Frame	CNC8201
	16	Spacer	CNM6155
	17	Spacer	CNM6156
	18	•••••	
	19	•••••	
	20	PCB	CNP5941
	21	PCB	CNP6124
*	22	Panel	CNS6359
	23	Guide	CNV5696
	24	Rack	CNV5697
	25	Gear	CNV5698
	26	Gear	CNV5761
	27	Gear Unit	CNV5762
	28	Cover	CNV6573
	29	Holder	CNV6575
	30	Lighting Conductor	CNV6574
	31	Switch(S951)	CSN1012
	32	Switch(S952)	CSN1022
	33	Arm Unit	CXB3574
	34	Bracket Unit	CXB3577
	35	Arm Unit	CXB3866
	36	Holder Unit	CXB6726
	37	Frame Unit	CXB6727
	38	Motor(M951)	CXM1085
	39	Washer	2-1816-0035-D2-00
	40	Washer	2-1821-0045-D2-00

2.5 CD MECHANISM MODULE

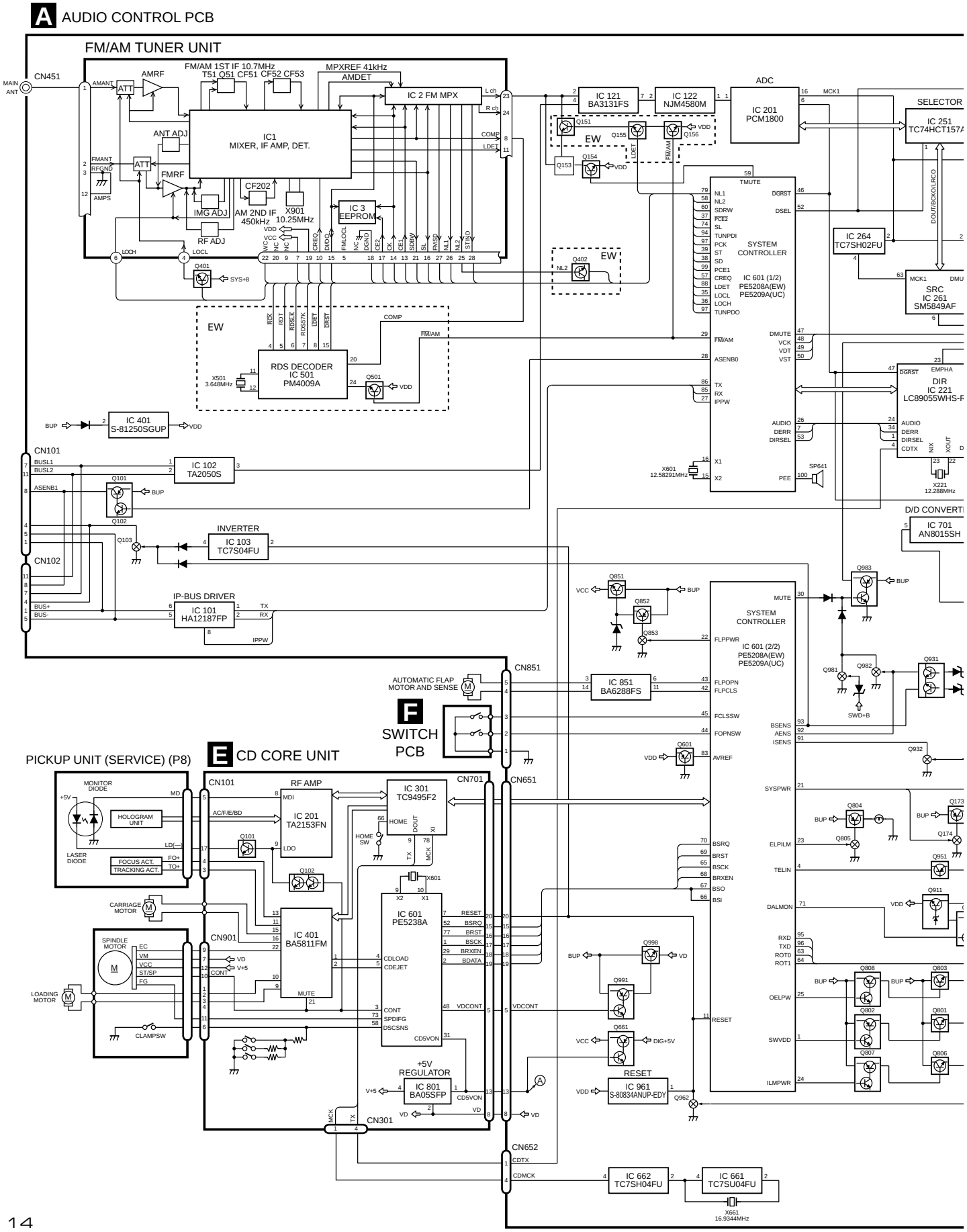


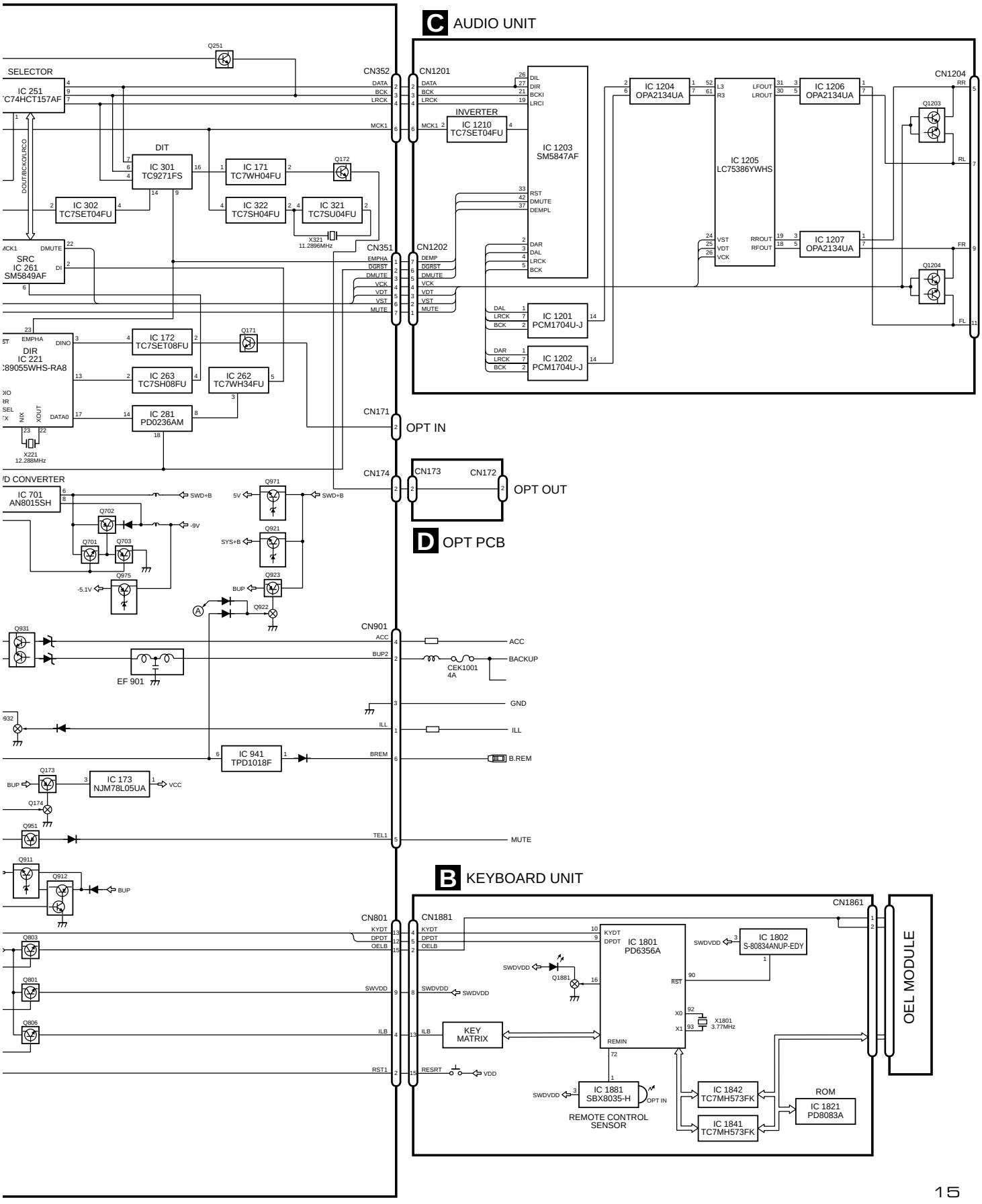
● CD MECHANISM MODULE SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	CD Core Unit	CWX2531
	2	Connector(CN101)	CKS3785
	3	Connector(CN901)	CKS4291
	4	Connector(CN701)	CKS4522
	5	Screw	BSZ20P035FMC
	6	Screw(M2x4)	CBA1362
	7	Screw(M2x2.5)	CBA1510
	8	Screw(M2x3)	CBA1511
	9	Screw(M2x6.2)	CBA1536
	10	Washer	CBF1037
	11	Washer	CBF1064
	12	Spring	CBH2291
	13	Spring	CBH2292
	14	Spring	CBH2293
	15	Spring	CBH2295
	16	Spring	CBH2297
	17	Spring	CBH2298
	18	Spring	CBH2299
	19	Spring	CBH2303
	20	Spring	CBH2304
	21	Spring	CBH2305
	22	Spring	CBH2308
	23	Spring	CBH2309
	24	Spring	CBH2332
	25	Spring	CBH2416
	26	Spring	CBH2434
	27	Spring	CBL1448
	28	Spring	CBL1466
	29	Connector	CDE6099
	30	Shaft	CLA3683
	31	Shaft	CLA3684
	32	Lever	CNC8501
	33	Bracket	CNC8507
	34	Bracket	CNC8509
	35	Cushion	CNM6301
	36	Sheet	CNM6773
	37	Sheet	CNM6774
	38	Gear	CNR1559
	39	Arm	CNV5928
	40	Arm	CNV5929
	41	Gear	CNV5930
	42	Gear	CNV5932
	43	Gear	CNV5931
	44	Gear	CNV5933
	45	Holder	CNV5943
	46	Holder	CNV5944
	47	Arm	CNV5948
	48	Cover	CNV5950
	49	Holder	CNV5951
	50	Holder	CNV6222
	51	Holder	CNV6223
	52	Damper	CNV6426
	53	Holder	CNV6446
	54	Holder	CNV6512
	55	Chassis Unit	CXB4501
	56	Arm Unit	CXB4503
	57	Motor Unit(M3)	CXB6620
	58	Screw(M2x1.2)	CBA1495
	59	Guide	CNV5925
	60	Arm Unit	CXB5311
	61	Loading Arm Assy(-G)	CXB5715
	62	Washer	CBF1060
	63	Spring	CBH2170
*	64	Shaft	CLA3678
*	65	Gear	CNV5934
	66	Roller	CNV6068
	67	Holder	CNV6210
	68	Collor	CNV6439
	69	Arm Unit	CXB5686
	70	Washer	YE20FUC
	71	Washer	CBF1038
	72	Arm	CNC8498
	73	Lever Unit	CXB4502
	74	Screw(M2x1.5)	CBA1509
	75	Frame	CNC8497
	76	Sheet	CNM6951
	77	Guide	CNV5924
	78	Washer	CBF1037
	79	Spring	CBH2300
	80	Spring	CBL1446
	81	•••••	
	82	Spacer	CNM6467
	83	Ball	CNR1189
	84	Guide	CNV5945
	85	Clamper	CNV5946
	86	Arm	CNV5947
	87	Lever	CNV5949
	88	Arm Unit	CXB4505
	89	Screw	JFZ20P020FMC
	90	Frame	CNC9465
	91	Damper	CNV6426
	92	Screw	ISS20P060FMC
	93	Screw(M2x3)	CBA1511
	94	Holder	CNV6341
	95	Roller	CNV6389
	96	Arm Unit	CXB5970
	97	Roller	CNV6389
	98	Arm Unit	CXB5971
	99	Load Motor Assy(-D)(M2)	CXB6340
	100	Carriage Motor Assy(-D)(M1)	CXB6361
	101	Screw Unit(-B)	CXB6363
	102	Screw	ISS20P060FMC
	103	Screw	JFZ20P025FNI
	104	Washer	YE15FUC
	105	Pickup Unit(Service)(P8)	CXX1305
	106	Screw	IMS20P030FMC
*	107	Cover	CNC9151
	108	Screw	BMZ26P030FCU
	109	Cord	CDE6615
	110, 111	•••••	
	112	Connector(CN301)	CKS4439

3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

3.1 BLOCK DIAGRAM

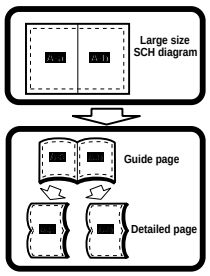


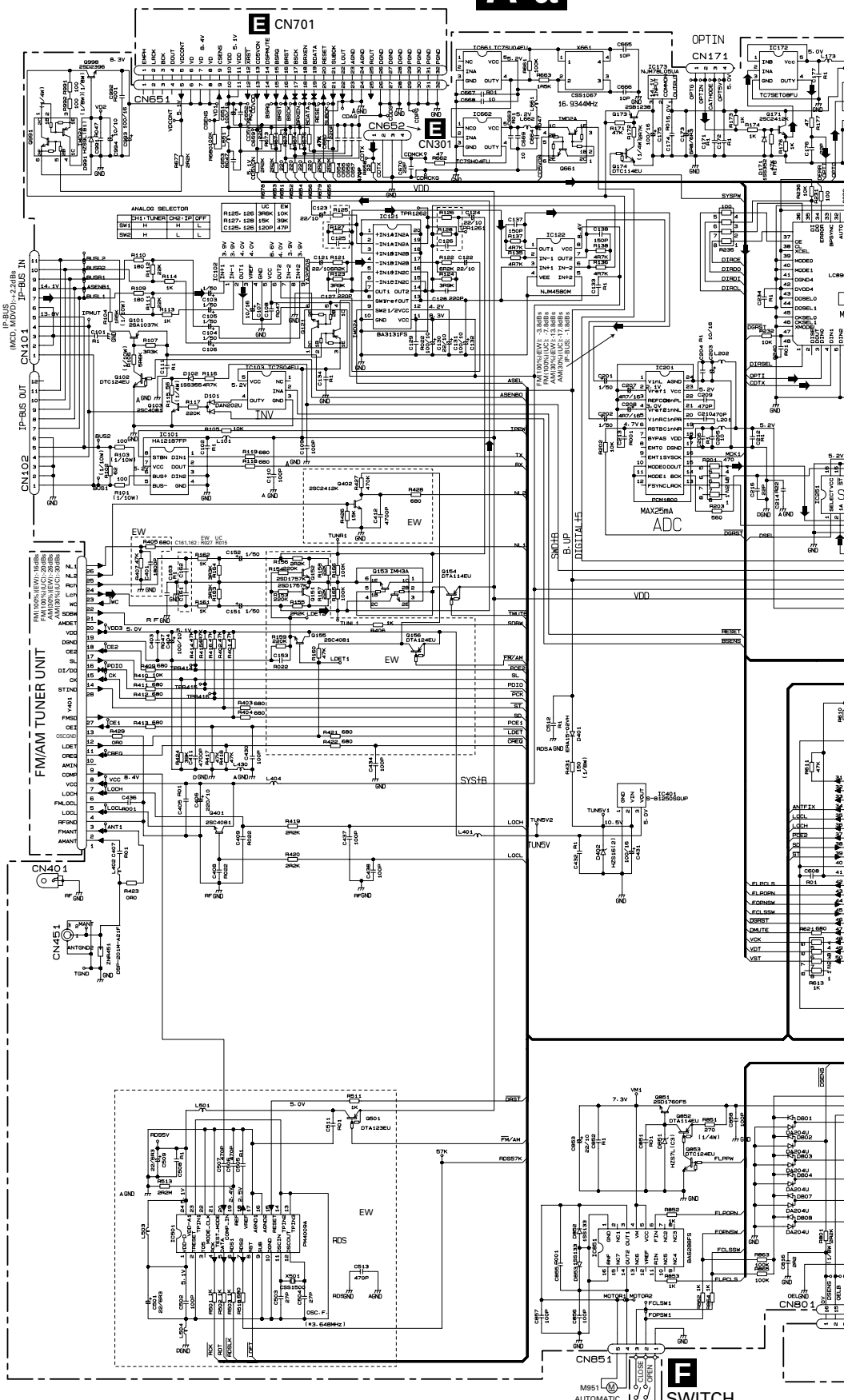

C AUDIO UNIT
SELECTOR
IC 251
C74HCT157AF
Q251
CN352
DIT
IC 301
TC9271FS
IC 171
TC7WH04FU
Q172
IC 302
TC7SET04FU
IC 322
TC7SH04FU
IC 321
TC7SU04FU
X321
11.2896MHz
SRC
IC 261
SM5849AF
CN351
DIR
IC 221
89055WHS-RA8
X221
12.288MHz
IC 172
TC7SET08FU
Q171
IC 263
TC7SH08FU
IC 262
TC7WH34FU
IC 281
PD0236AM
CN171
OPT IN
CN174
CN173
CN172
OPT OUT
D OPT PCB
D/D CONVERTER
IC 701
AN8015SH
Q702
Q701
Q703
Q975
Q971
Q921
Q923
Q922
CN901
ACC
BACKUP
CEK1001
4A
EF 901
GND
ILL
IC 941
TPD1018F
B.REM
Q173
IC 173
NJM78L05UA
VCC
Q174
Q951
MUTE
Q911
Q912
BUP
CN801
KYDT
DPDT
OELB
SWVDD
ILB
RST1
Q803
Q801
Q806
CN1201
IC 1210
TC7SET04FU
INVERTER
IC 1203
SM5847AF
IC 1205
LC75386YWHS
IC 1204
OPA2134UA
IC 1206
OPA2134UA
IC 1207
OPA2134UA
CN1204
Q1203
Q1204
IC 1201
PCM1704U-J
IC 1202
PCM1704U-J
CN1202
B KEYBOARD UNIT
CN1881
CN1861
IC 1801
PD6356A
IC 1802
S-80834ANUP-EDY
Q1881
X1801
3.77MHz
KEY
MATRIX
REMIN
IC 1881
SBX8035-H
REMOTE CONTROL
SENSOR
IC 1842
TC7MH573FK
IC 1841
TC7MH573FK
ROM
IC 1821
PD8083A
OEL MODULE

3.2 OVERALL CONNECTION DIAGRAM(GUIDE PAGE)

Note: When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".

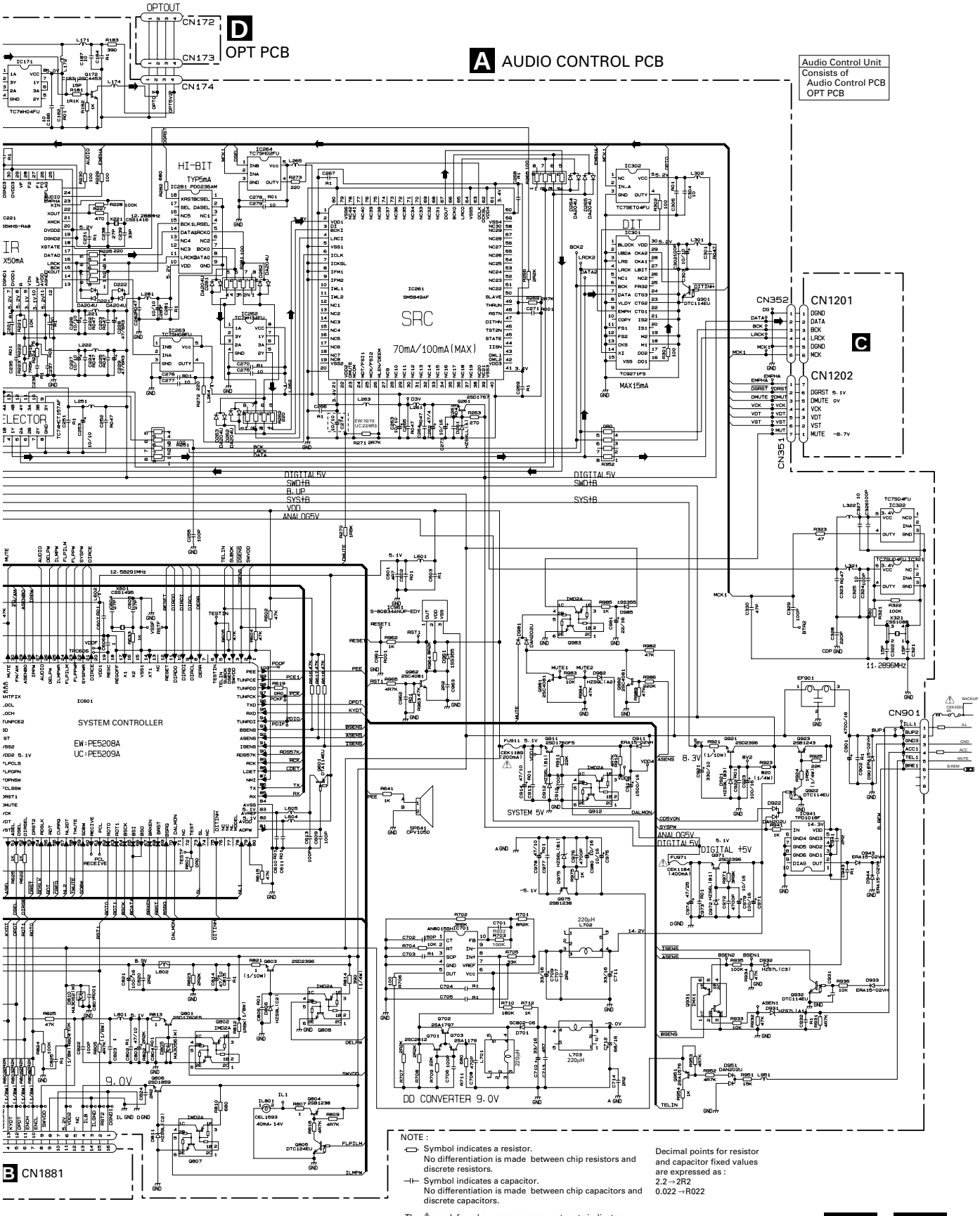
A-a





A F

A-b

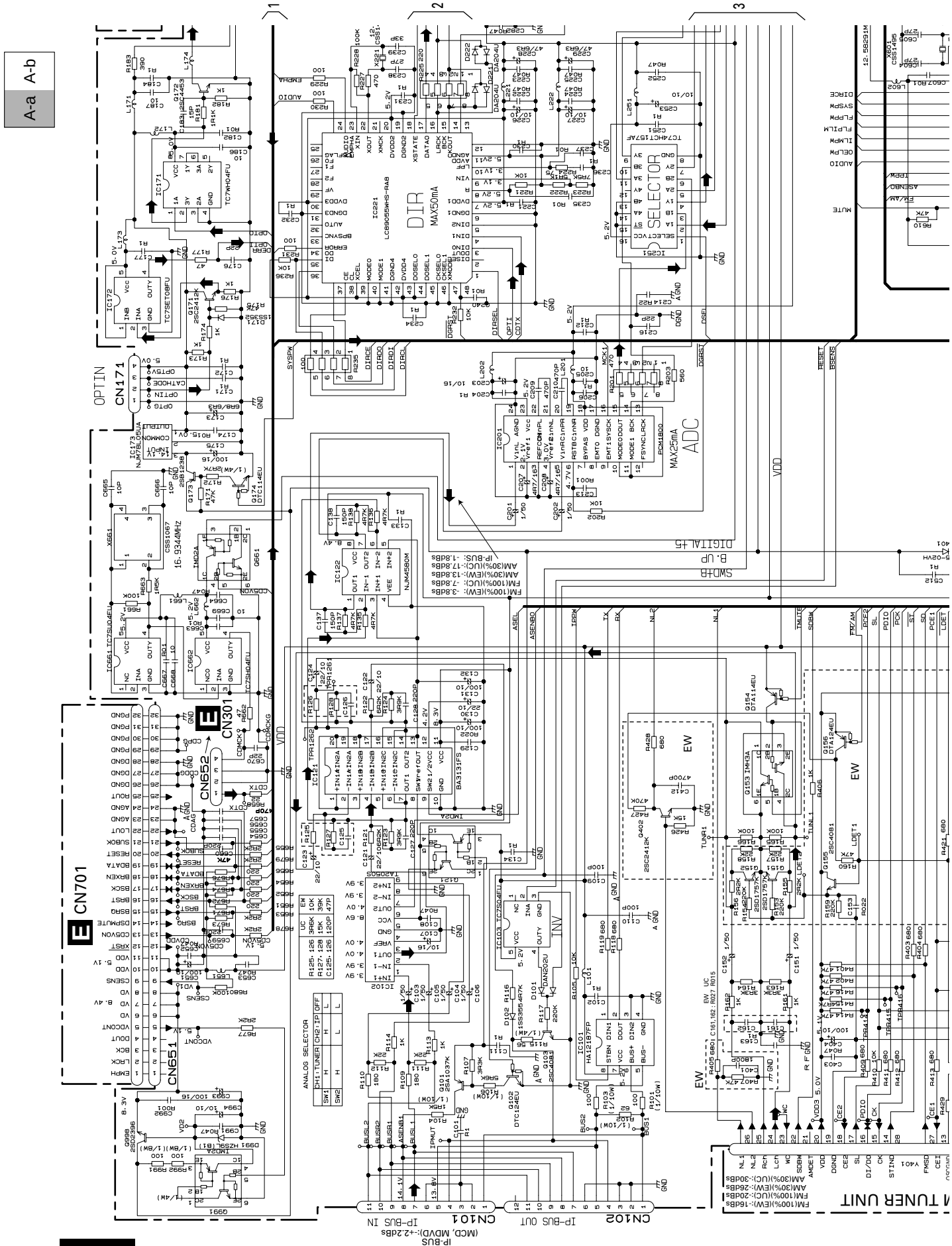


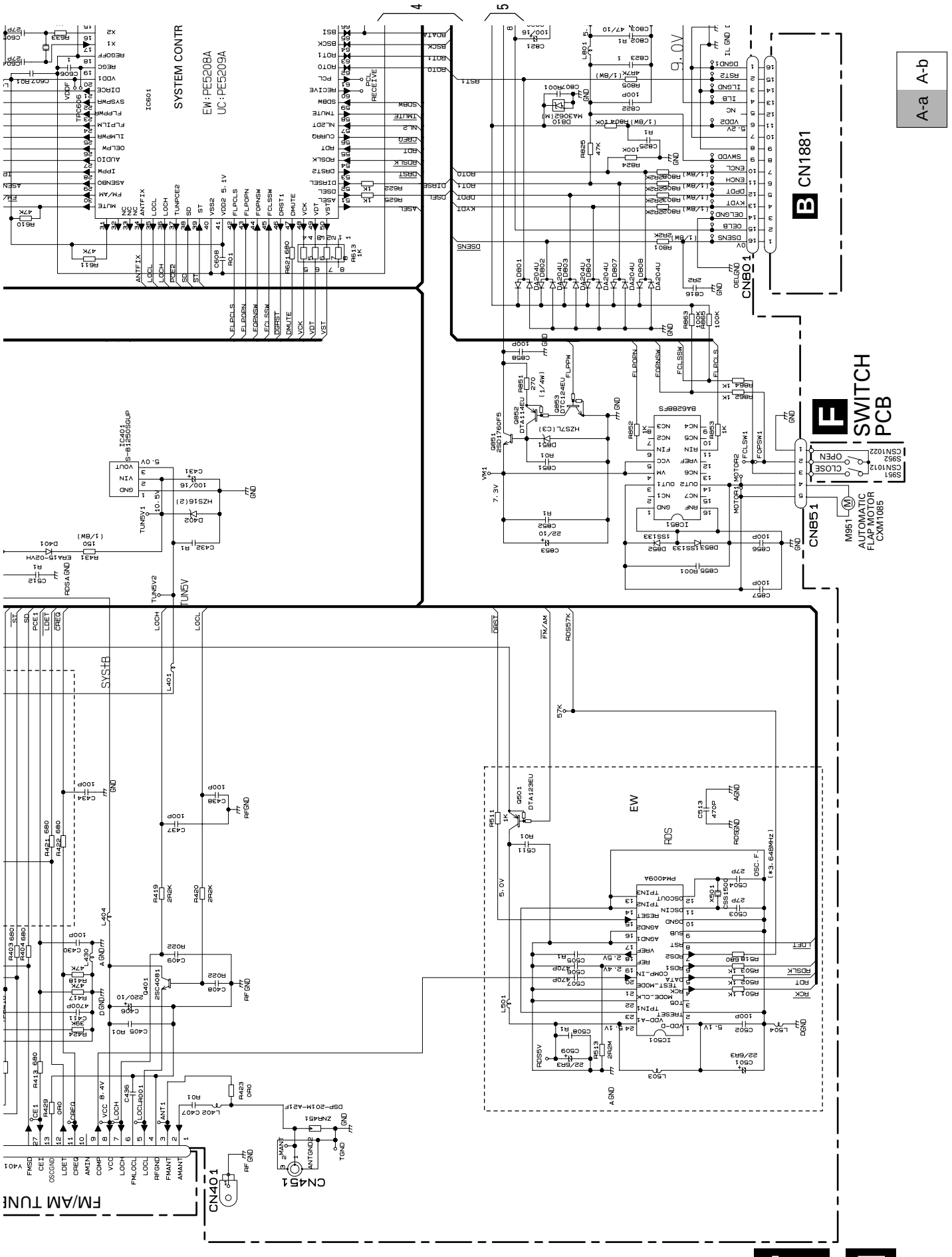
NOTE :

- Symbol indicates a resistor. No differentiation is made between chip resistors and discrete resistors.
- Symbol indicates a capacitor. No differentiation is made between chip capacitors and discrete capacitors.

The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

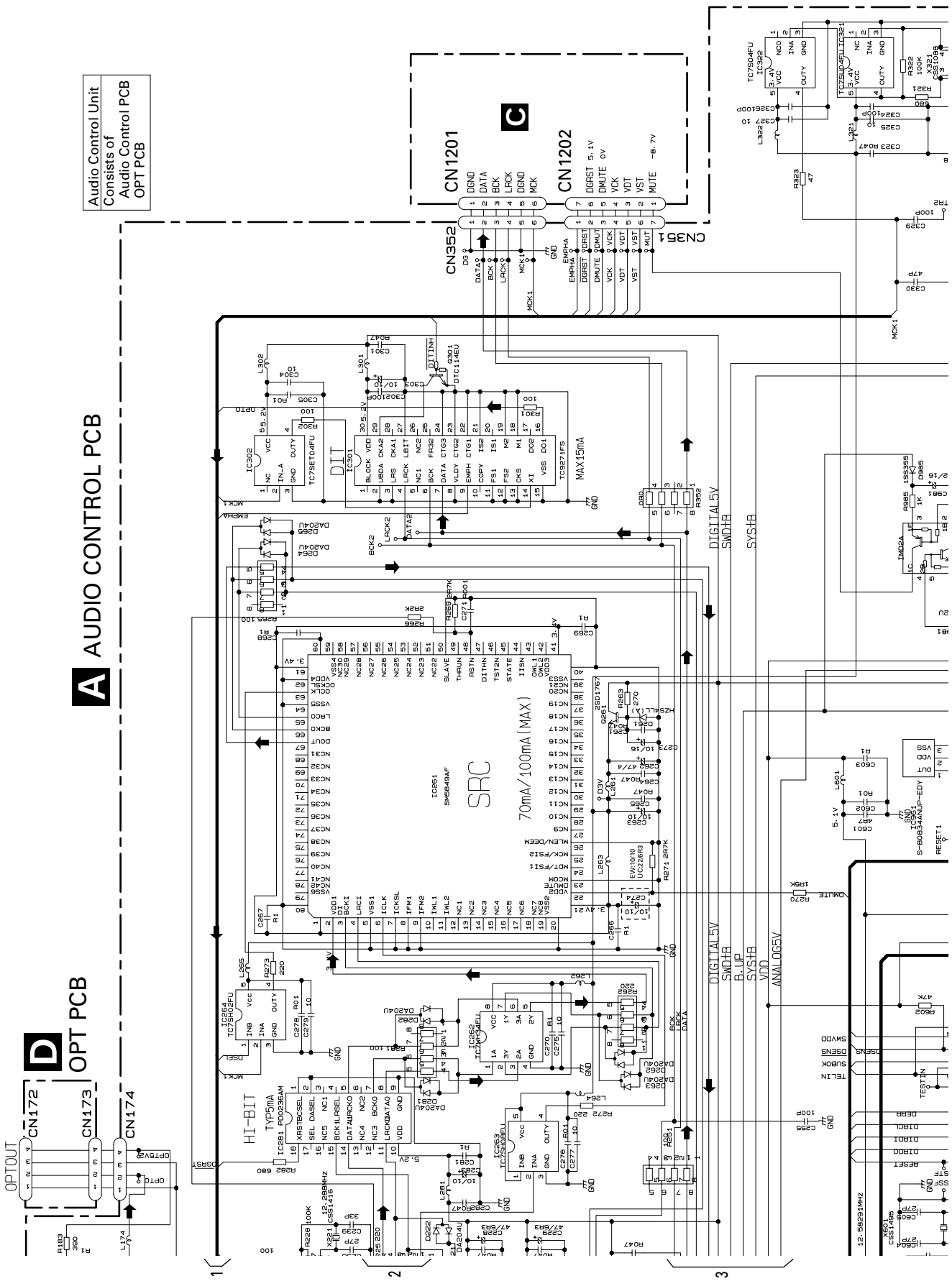
Decimal points for resistor and capacitor fixed values are expressed as :
2.2→2R2
0.022→R022

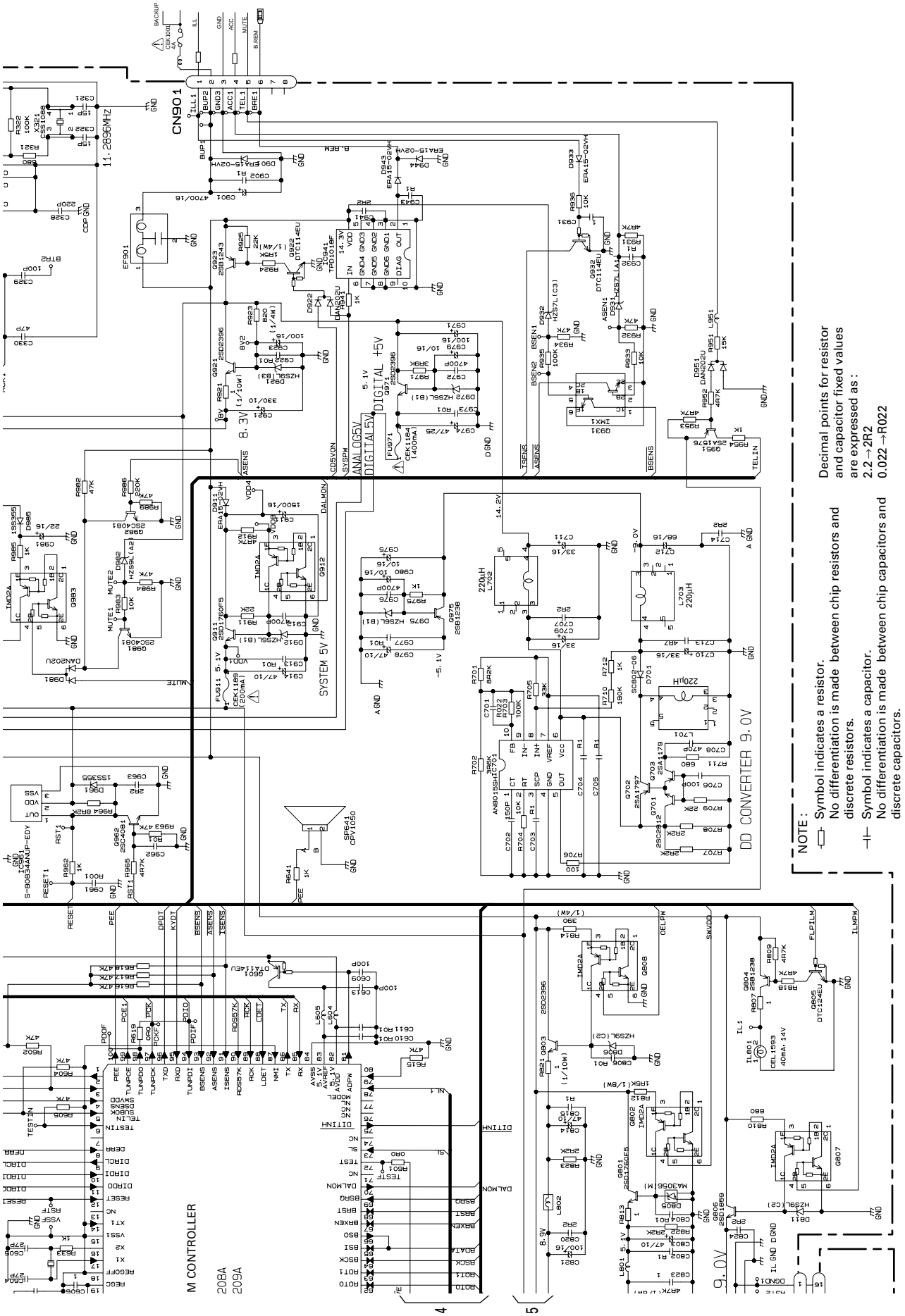

A-a
A-b
CN701
CN651
CN652
CN301
CN171
CN101
CN102
DIR
MAX50mA
SELECTOR
ADC
MAX25mA
IP-BUS
IP-BUS IN
IP-BUS OUT
TUNER UNIT
DIGITAL 5
VDD
EW
INV


SYSTEM CONTR
EW:PE5208A
UC:PE5209A
IC601
CN801
CN1881
B
SWITCH PCB
F
CN851
M951
AUTOMATIC FLAP MOTOR CXM1085
CN401
CN451
FM/AM TUNE
SYSHB
EW
RDS
A-b
A-a

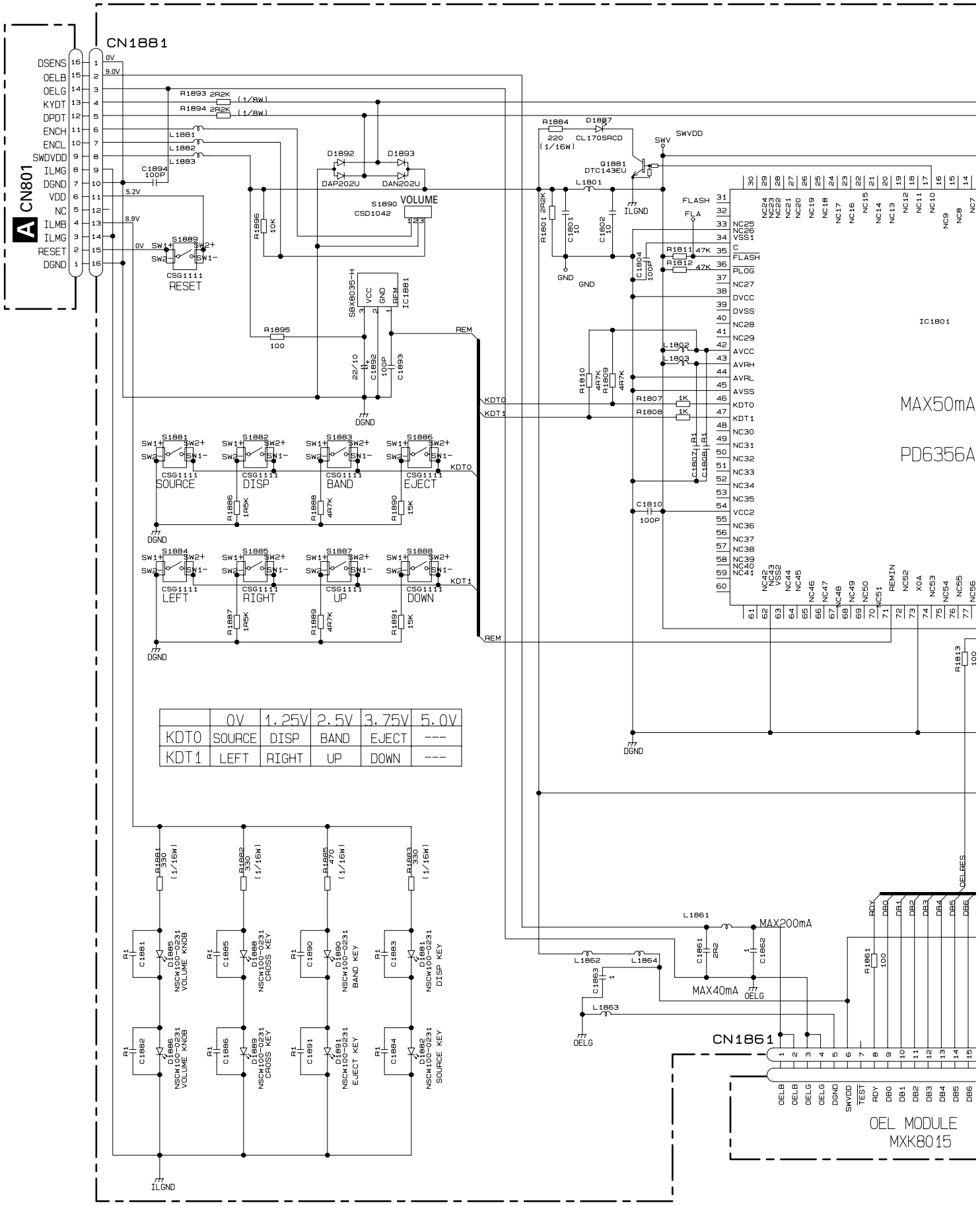
A-a A-b

Audio Control Unit
Consists of
Audio Control PCB
OPT PCB



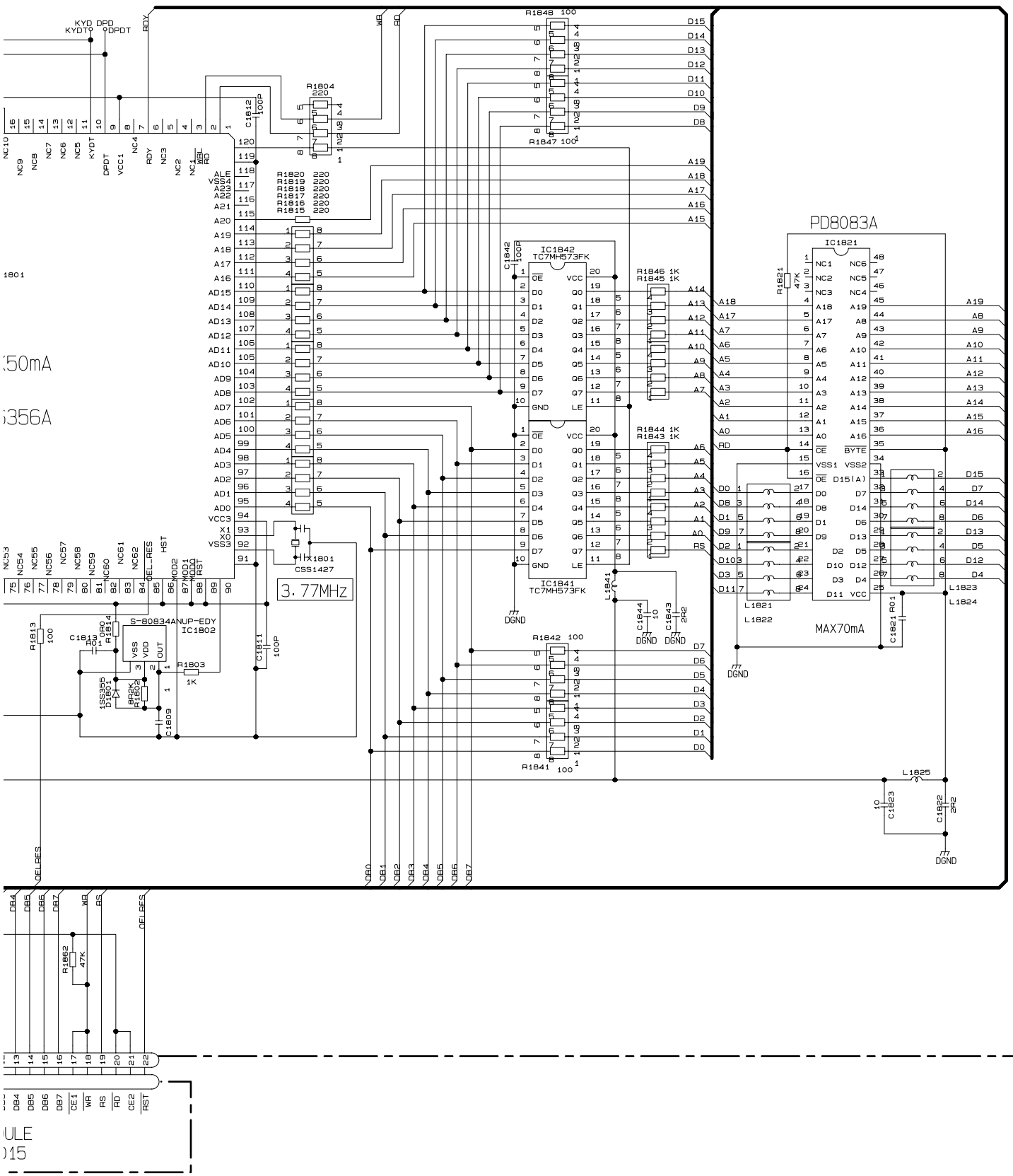

A-a
A-b
Decimal points for resistor and capacitor fixed values are expressed as :
2.2→2R2
0.022→R022
NOTE :
Symbol indicates a resistor. No differentiation is made between chip resistors and discrete resistors.
Symbol indicates a capacitor. No differentiation is made between chip capacitors and discrete capacitors.
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
CN901
DIGITAL +5V
ANALOG5V
DIGITAL5V
8.3V
SYSTEM 5V
-5.1V
DD CONVERTER 9.0V
9.0V
M CONTROLLER
208A
209A

3.3 KEYBOARD UNIT

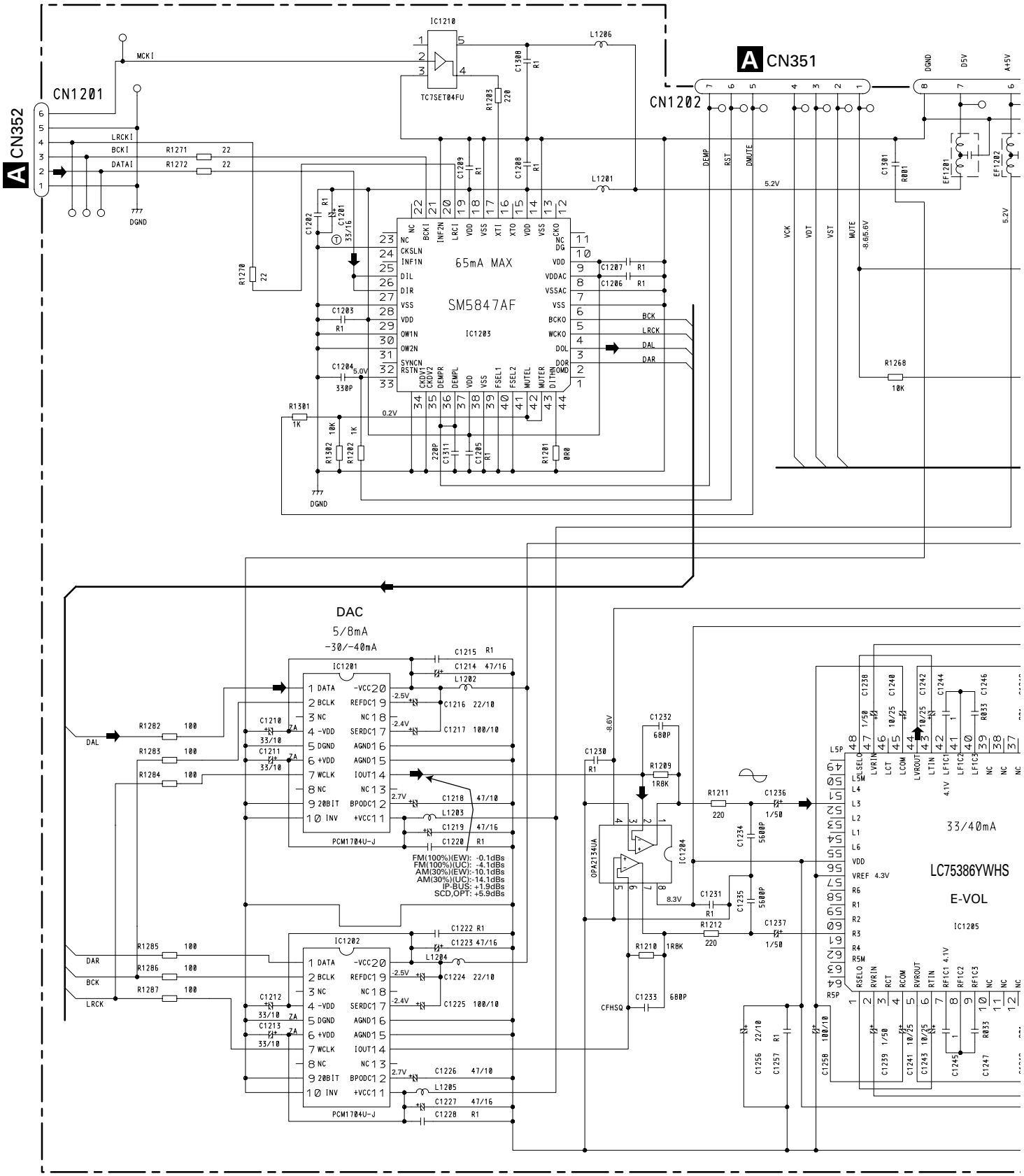


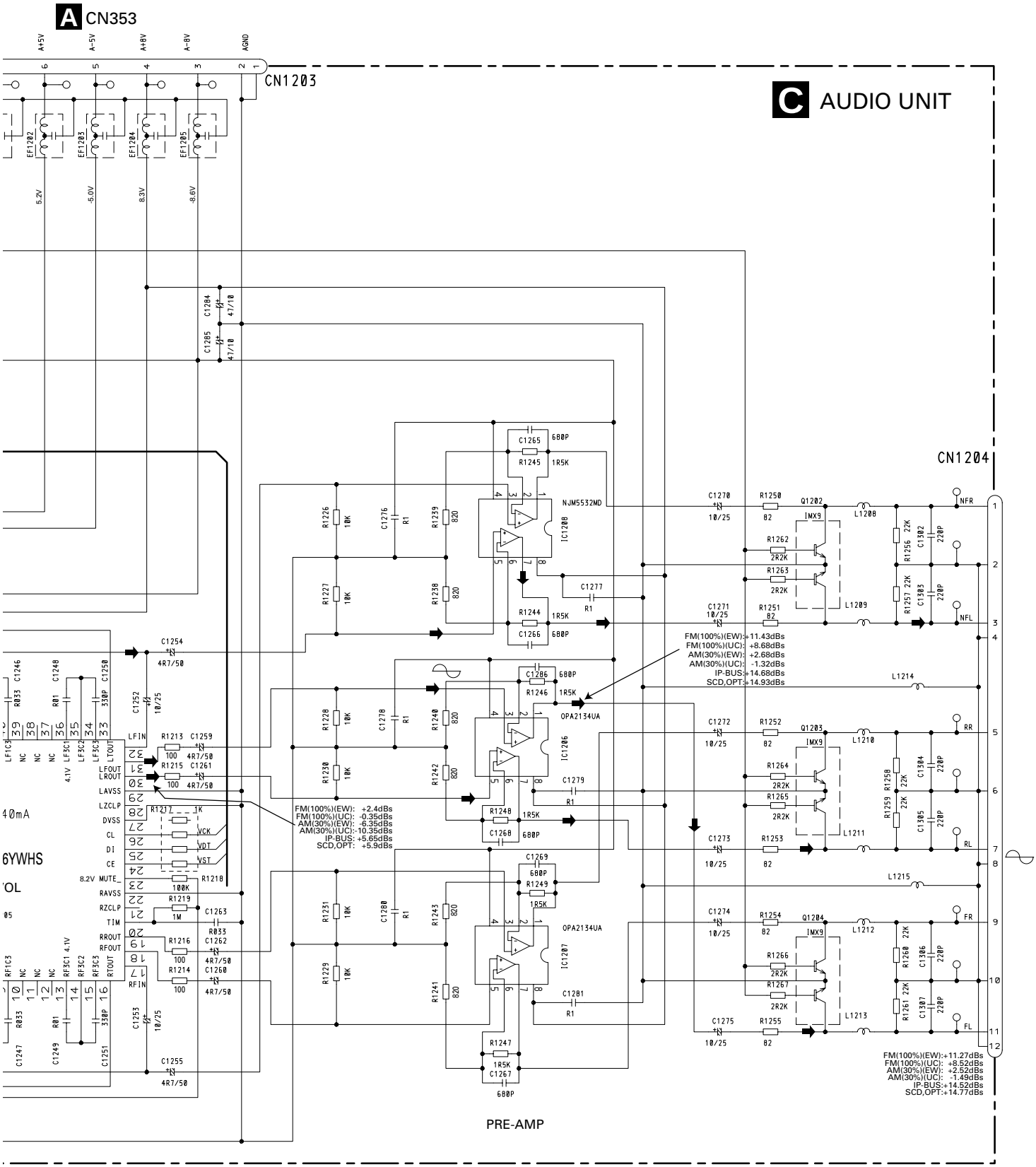
	0V	1.25V	2.5V	3.75V	5.0V
KDT0	SOURCE	DISP	BAND	EJECT	---
KDT1	LEFT	RIGHT	UP	DOWN	---

B KEYBOARD UNIT



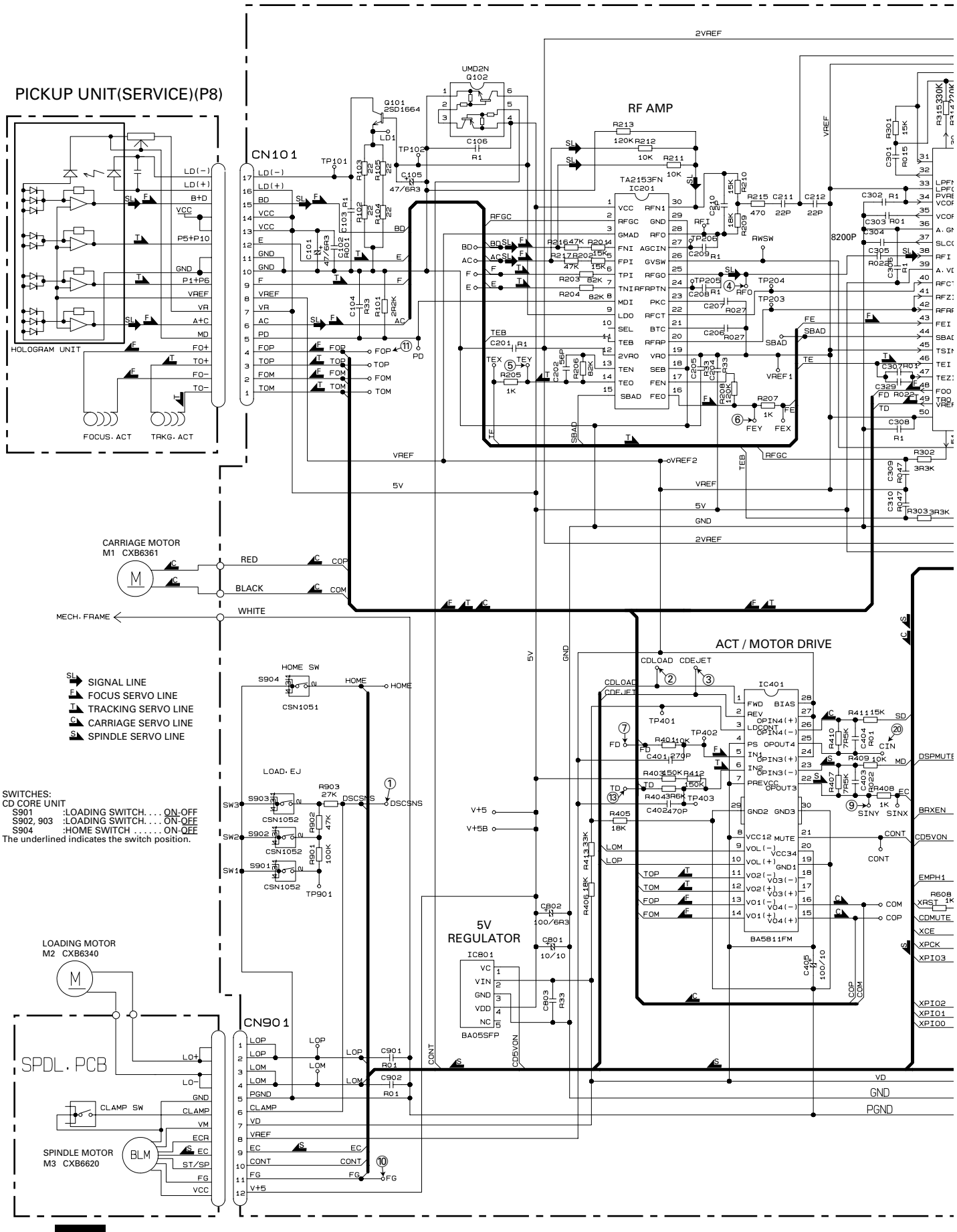
3.4 AUDIO UNIT

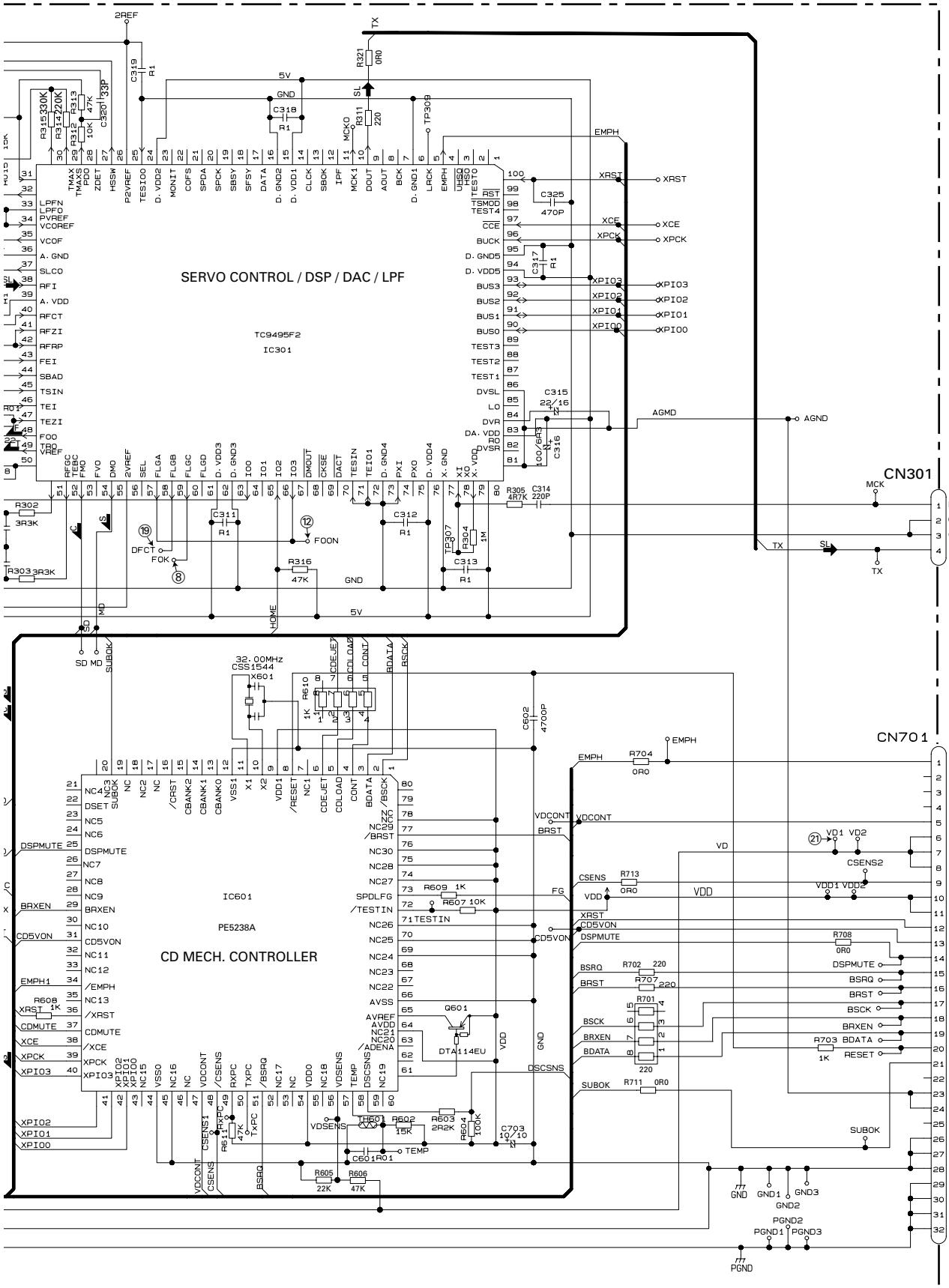



A CN353
CN1203
C AUDIO UNIT
CN1204
A+5V
A-5V
A+8V
A-8V
AGND
EF1202
EF1203
EF1204
EF1205
5.2V
-5.0V
8.3V
-8.6V
C1284 4.7/10
C1285 4.7/10
C1254 4R7/50
C1255 4R7/50
C1265 680P
R1245 1R5K
C1266 680P
C1277 R1
C1286 680P
R1246 1R5K
C1268 680P
C1279 R1
C1269 680P
R1249 1R5K
C1267 680P
C1281 R1
R1247 1R5K
NJM5532MD
IC1208
OPA2134UA
IC1206
OPA2134UA
IC1207
R1226 10K
R1227 10K
R1228 10K
R1230 10K
R1231 10K
R1229 10K
C1276 R1
C1278 R1
C1280 R1
R1239 820
R1238 820
R1240 820
R1242 820
R1243 820
R1241 820
C1270 10/25
C1271 10/25
C1272 10/25
C1273 10/25
C1274 10/25
C1275 10/25
R1250 82
R1251 82
R1252 82
R1253 82
R1254 82
R1255 82
Q1202 IMX9
Q1203 IMX9
Q1204 IMX9
R1262 2R2K
R1263 2R2K
R1264 2R2K
R1265 2R2K
R1266 2R2K
R1267 2R2K
L1208
L1209
L1210
L1211
L1212
L1213
L1214
L1215
R1256 22K
C1302 220P
R1257 22K
C1303 220P
R1258 22K
C1304 220P
R1259 22K
C1305 220P
R1260 22K
C1306 220P
R1261 22K
C1307 220P
NFR
NFL
RR
RL
FR
FL
FM(100%)(EW):+11.43dBs
FM(100%)(UC): +8.68dBs
AM(30%)(EW): +2.68dBs
AM(30%)(UC): -1.32dBs
IP-BUS:+14.68dBs
SCD,OPT:+14.93dBs
FM(100%)(EW): +2.4dBs
FM(100%)(UC): -0.35dBs
AM(30%)(EW): -6.35dBs
AM(30%)(UC):-10.35dBs
IP-BUS: +5.65dBs
SCD,OPT: +5.9dBs
FM(100%)(EW):+11.27dBs
FM(100%)(UC): +8.52dBs
AM(30%)(EW): +2.52dBs
AM(30%)(UC): -1.49dBs
IP-BUS:+14.52dBs
SCD,OPT:+14.77dBs
LFIN
LFOUT
LROUT
LAVSS
LZCLP
DVSS
CL
DI
CE
MUTE
RAVSS
RZCLP
TIM
RROUT
RFOUT
RFIN
LTOUT
RTOUT
R1213 100
R1215 100
R1217 1K
R1218 100K
R1219 1M
R1216 100
R1214 100
C1259 4R7/50
C1261 4R7/50
C1263 R033
C1262 4R7/50
C1260 4R7/50
VCK
VDT
VST
8.2V
4.1V
PRE-AMP

3.5 CD MECHANISM MODULE

E CD CORE UNIT



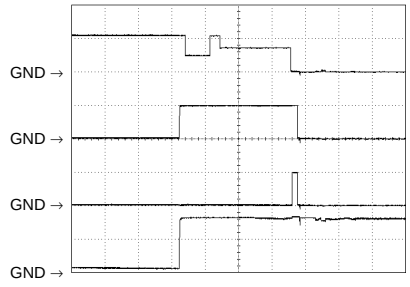

SERVO CONTROL / DSP / DAC / LPF
TC9495F2
IC301
CD MECH. CONTROLLER
IC601
PE5238A
CN301
CN652
CN701
CN651
A
B
C
D
E
27

Note:1. The encircled numbers denote measuring pointes in the circuit diagram.
2. Reference voltage
VREF:2.1V

● Waveforms

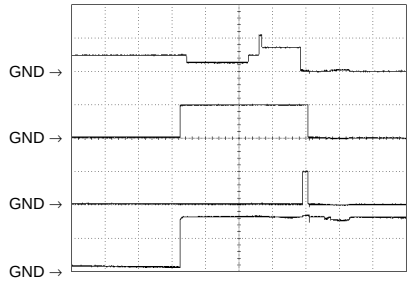
① CH1:DSCSNS 5V/div.
② CH2:CDLOAD 5V/div.
③ CH3:CDEJET 5V/div.
㉑ CH4:VD 5V/div.
500ms/div.

8cm LOAD



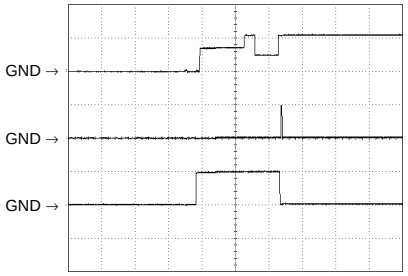
① CH1:DSCSNS 5V/div.
② CH2:CDLOAD 5V/div.
③ CH3:CDEJET 5V/div.
㉑ CH4:VD 5V/div.
500ms/div.

12cm LOAD



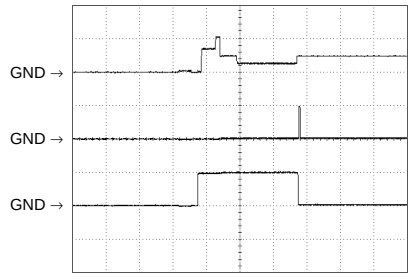
① CH1:DSCSNS 5V/div.
② CH2:CDLOAD 5V/div.
③ CH3:CDEJET 5V/div.
500ms/div.

8cm EJECT



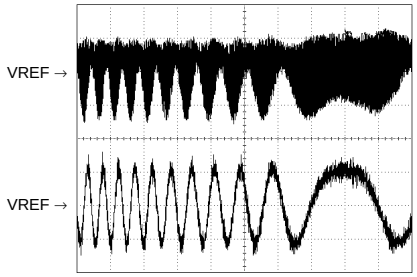
① CH1:DSCSNS 5V/div.
② CH2:CDLOAD 5V/div.
③ CH3:CDEJET 5V/div.
500ms/div.

12cm EJECT



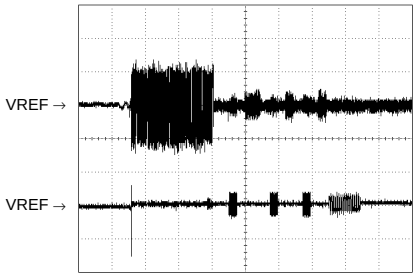
④ CH1:RFO 500mV/div.
⑤ CH2:TEY 500mV/div.
2ms/div.

Tracking open



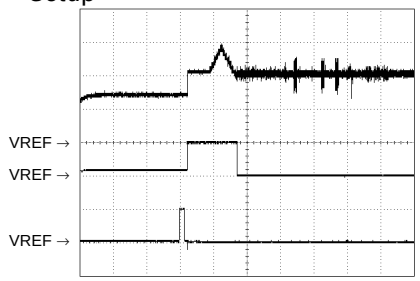
⑤ CH1:TEY 500mV/div.
⑥ CH2:FEY 500mV/div.
200ms/div.

Setup



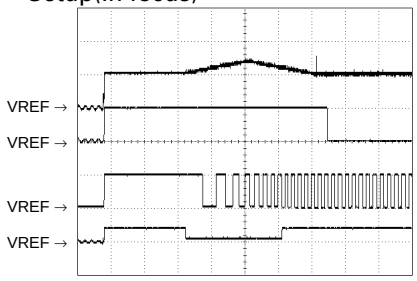
⑦ CH1:FD 1V/div.
⑧ CH2:$\overline{\text{FOK}}$ 5V/div.
⑨ CH3:SINY 5V/div.
500ms/div.

Setup



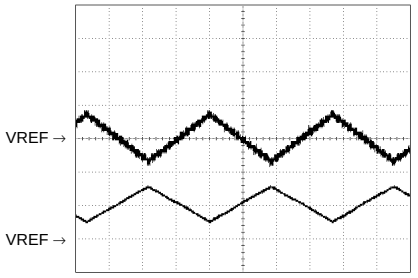
⑦ CH1:FD 2V/div.
⑧ CH2:$\overline{\text{FOK}}$ 5V/div.
⑩ CH3:FG 5V/div.
⑨ CH4:SINY 5V/div.
100ms/div.

Setup(In focus)



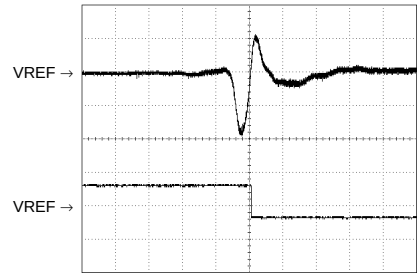
⑦ CH1:FD 1V/div.
⑪ CH2:FOP 2V/div.
200ms/div.

Setup(In focus)



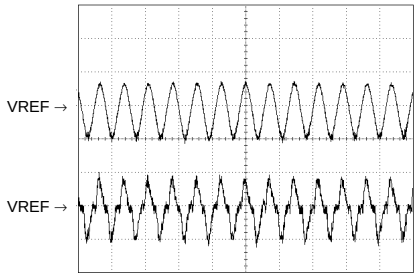
⑥ CH1:FEY 500mV/div.
⑫ CH2:$\overline{\text{FOON}}$ 5V/div.
1ms/div.

Setup(Focus close)



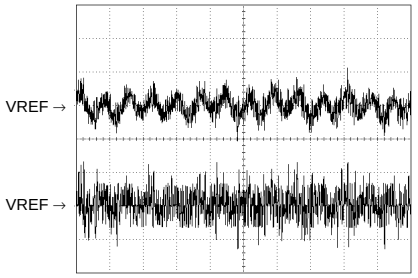
⑥ CH1:FEY 200mV/div.
⑦ CH2:FD 500mV/div.
1ms/div.

Setup(Focus AGC)



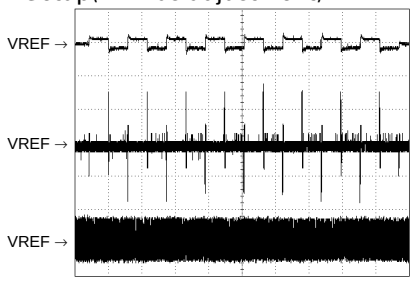
⑤ CH1:TEY 200mV/div.
⑬ CH2:TD 200mV/div.
1ms/div.

Setup(Tracking AGC)



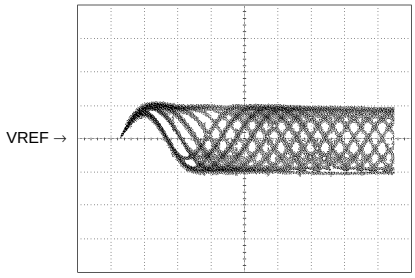
⑥ CH1:FEY 500mV/div.
⑦ CH2:FD 500mV/div. 10ms/div.
④ CH3:RFO 1V/div.

Setup(FE Bias adjustment)



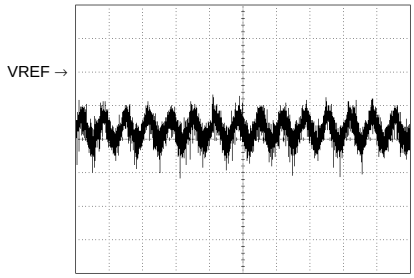
④ CH1:RFO 0.5V/div. 0.5µs/div.

Play



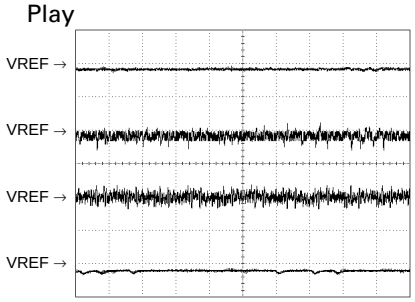
⑨ CH1:SINY 100mV/div. 200ms/div.

Play



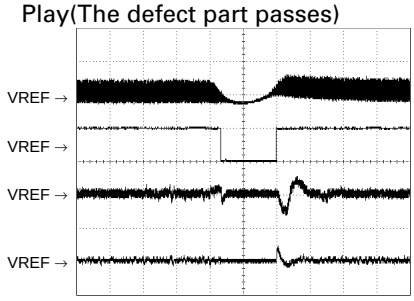
⑥ CH1:FEY 500mV/div.
⑦ CH2:FD 500mV/div. 1ms/div.
⑤ CH3:TEY 500mV/div.
⑬ CH4:TD 500mV/div.

Play



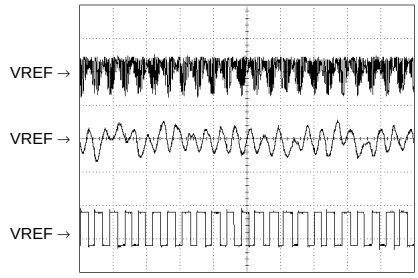
④ CH1:RFO 2V/div.
⑲ CH2:$\overline{\text{DFCT}}$ 5V/div. 500µs/div.
⑦ CH3:FD 1V/div.
⑬ CH4:TD 2V/div.

Play(The defect part passes)



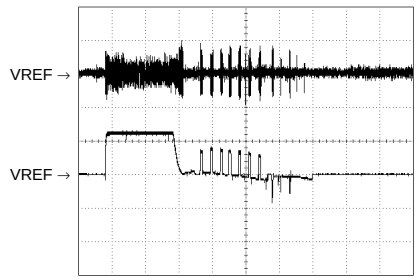
④ CH1:RFO 1V/div.
⑤ CH2:TEY 500mV/div. 50µs/div.
⑲ CH3:$\overline{\text{DFCT}}$ 5V/div.

CRG move



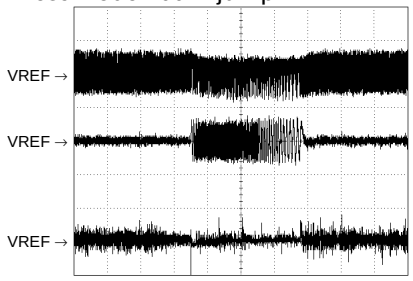
⑤ CH1:TEY 500mV/div. 200ms/div.
⑳ CH2:CIN 500mV/div.

Search



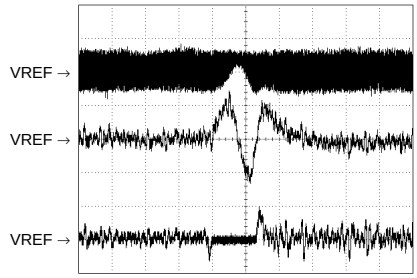
④ CH1:RFO 1V/div.
⑤ CH2:TEY 1V/div. 5ms/div.
⑬ CH3:TD 1V/div.

Test mode 100TRjump



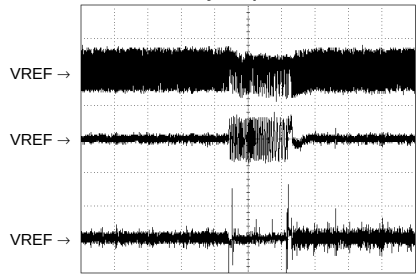
④ CH1:RFO 1V/div.
⑤ CH2:TEY 500mV/div. 500µs/div.
⑬ CH3:TD 1V/div.

Test mode 1TRjump



④ CH1:RFO 1V/div.
⑤ CH2:TEY 1V/div. 5ms/div.
⑬ CH3:TD 1V/div.

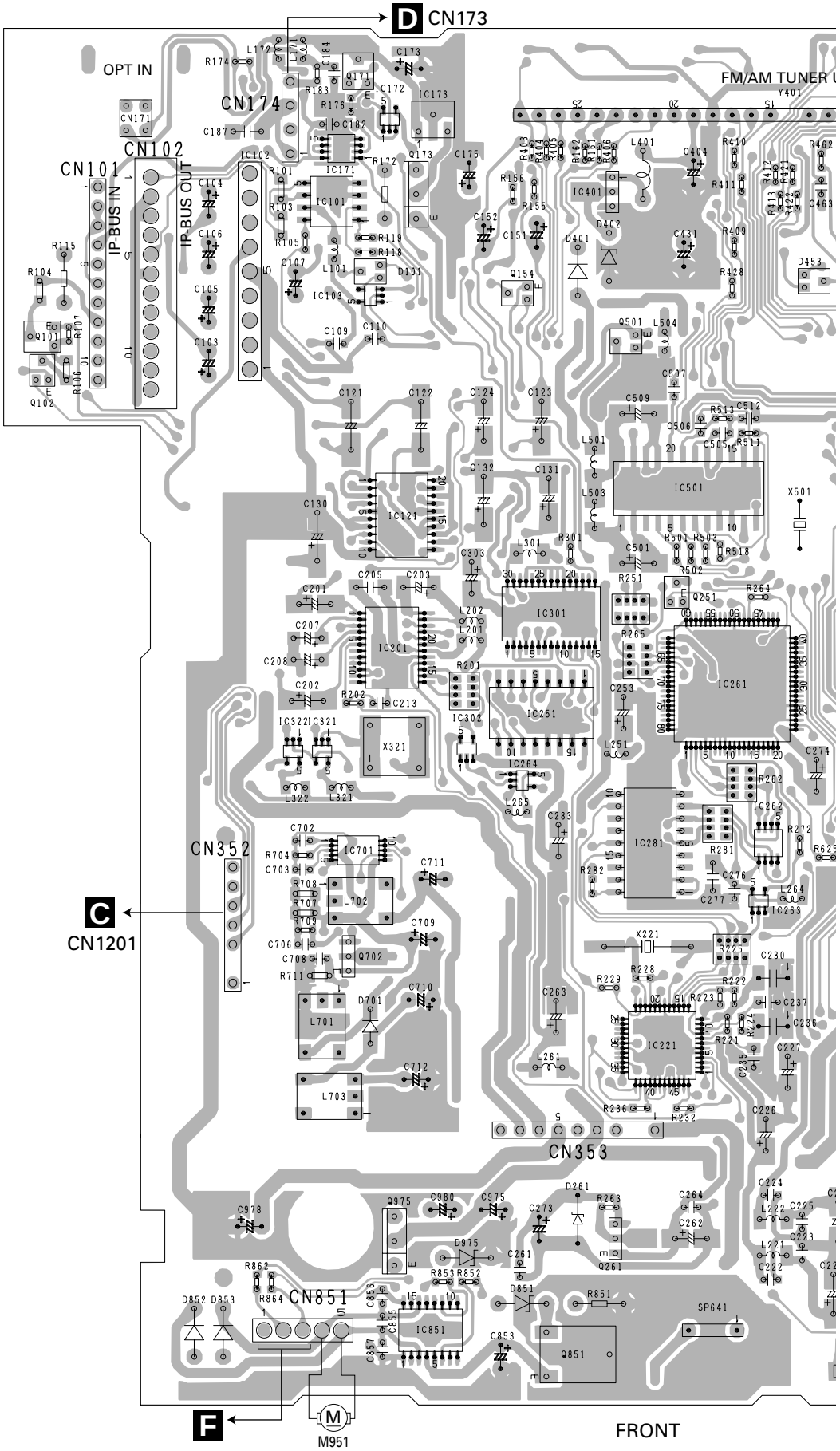
Test mode 32TRjump



4. PCB

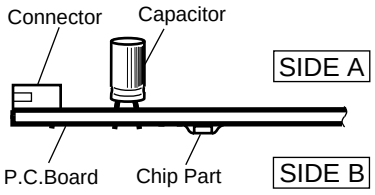
4.1 AUDIO CONTROL PCB

A AUDIO CONTROL PCB

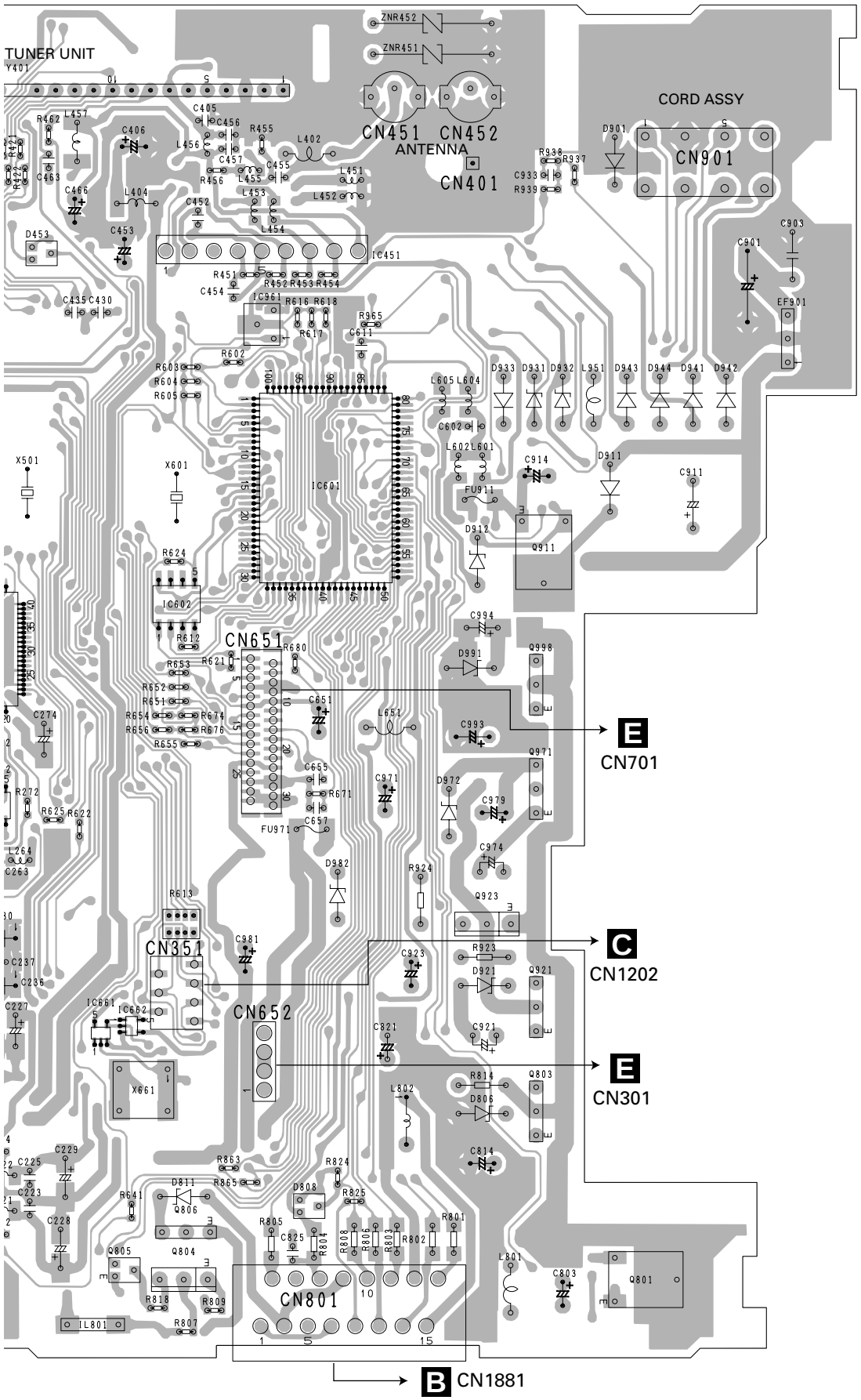


NOTE FOR PCB DIAGRAMS

1. The parts mounted on this PCB include all necessary parts for several destination.
   For further information for respective destinations, be sure to check with the schematic diagram.
2. Viewpoint of PCB diagrams



SIDE A



IC,Q

Q171
IC172 IC173

Q173 IC102
IC171
IC401 IC101

Q154
IC451 IC103
Q501 IC961
Q101

Q102

IC501
IC121 IC601

Q911
Q251
IC301
IC602 IC201

Q998 IC261

IC251 IC302
IC322 IC321
IC264
Q971
IC262
IC281
IC701 IC263

Q923
Q702

Q921

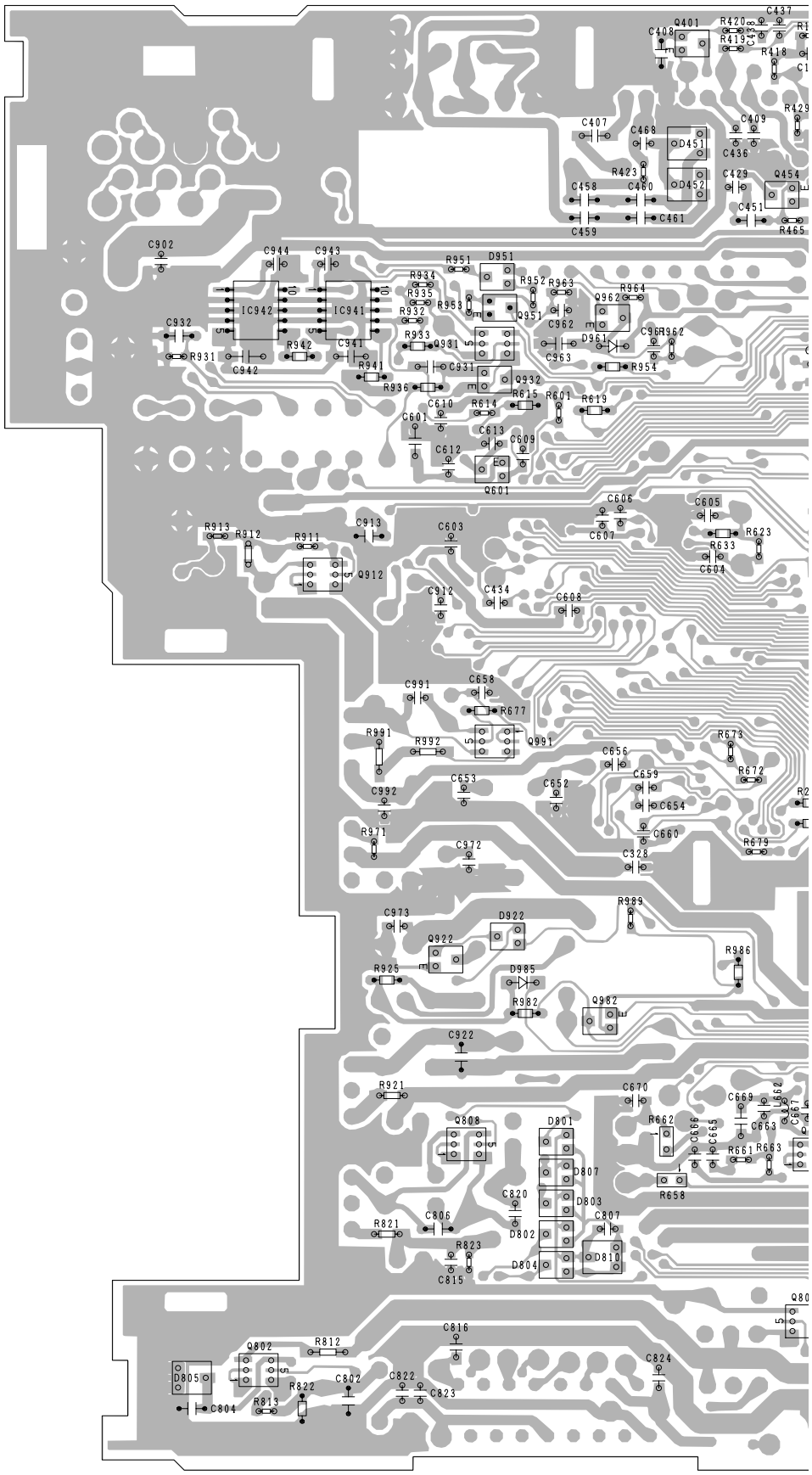
IC661 IC221 IC662

Q803

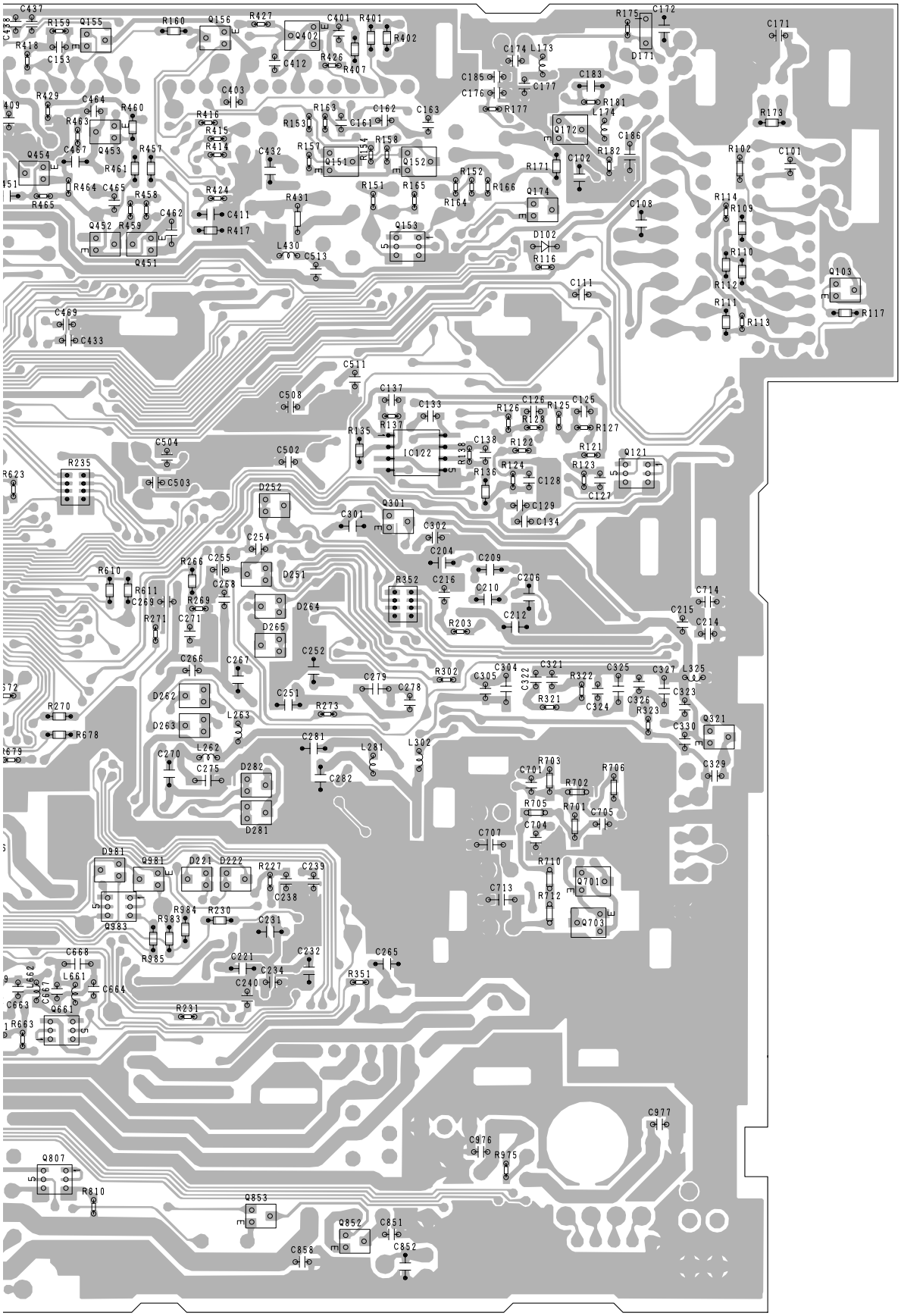
Q975

Q806
Q261
Q805 Q804
Q801 IC851
Q851

A AUDIO CONTROL PCB



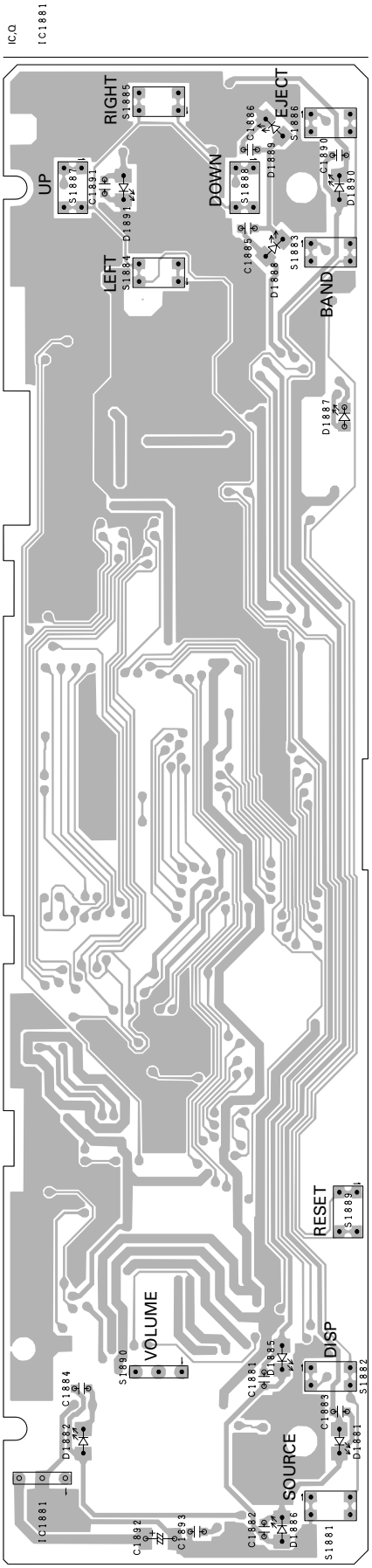
SIDE B


C437
R159
Q155
R160
Q156
R427
Q402
C401
R401
R402
R418
C153
C412
R426
R407
C403
R429
C464
R460
R463
R416
R415
R414
R153
C162
C163
C161
R157
Q151
R154
R158
Q152
C432
Q454
C467
Q453
R457
R461
R464
C465
R458
R465
R424
C411
R417
R431
C462
Q452
R459
Q451
L430
C513
R151
R165
R152
R164
R166
Q153
Q174
D102
R116
C111
C108
C469
C433
C511
C508
C137
C133
R126
C126
R125
C125
R135
R137
R128
R127
IC122
R138
C138
R122
R121
Q121
C504
C502
R235
R623
C503
R136
R124
C128
R123
C127
D252
C129
C134
Q301
C301
C302
C254
C204
C209
C255
R266
D251
C216
C206
R610
R611
C269
C258
R269
C210
C714
C215
R271
C271
D264
R352
R203
C212
C214
D265
C252
C266
C267
C304
C321
C325
C327
L325
C305
C322
R322
C323
R270
R678
D262
C279
C278
R302
R321
C324
C326
R323
C330
Q321
D263
L263
C251
R273
C281
L281
L302
C329
C270
L262
C275
D282
C282
R703
C701
R706
R702
R705
R701
C705
C704
C707
R710
C713
R712
Q701
Q703
D981
Q981
D221
D222
R227
C239
C238
Q983
R984
R983
R230
C231
R985
C668
C221
C232
C265
L661
C234
C240
R351
C664
C663
C667
Q661
R231
R663
C977
C976
R975
Q807
R810
Q853
Q852
C851
C852
C858

4.2 KEYBOARD UNIT

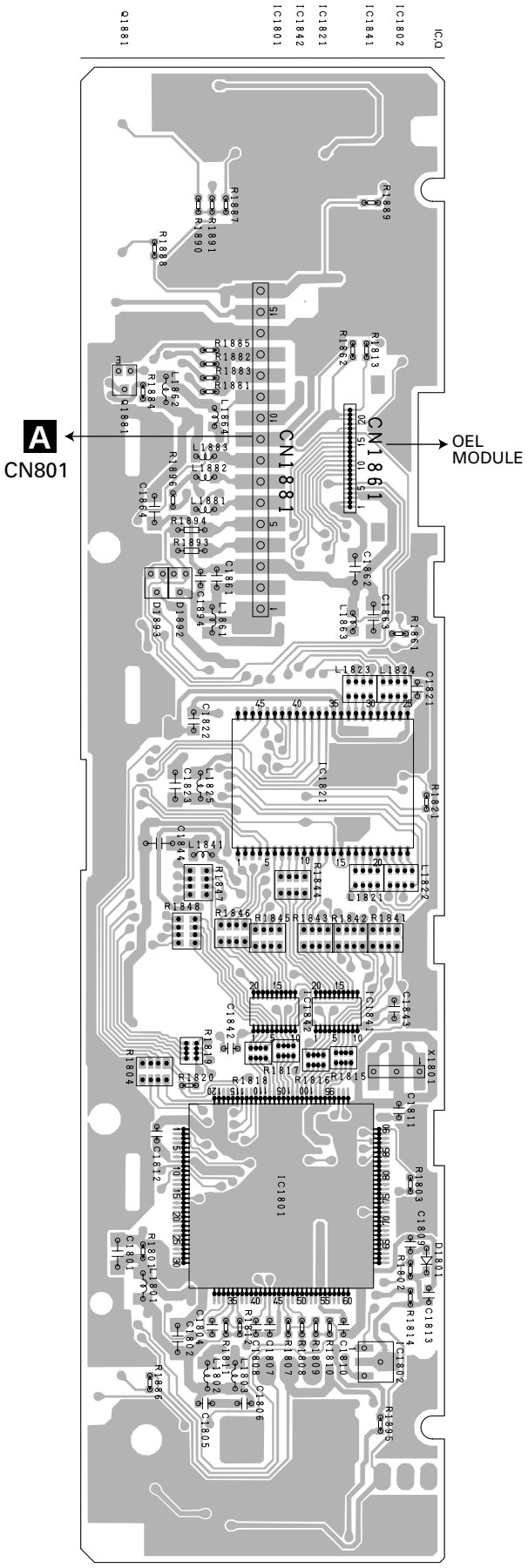
SIDE A

B KEYBOARD UNIT



B KEYBOARD UNIT

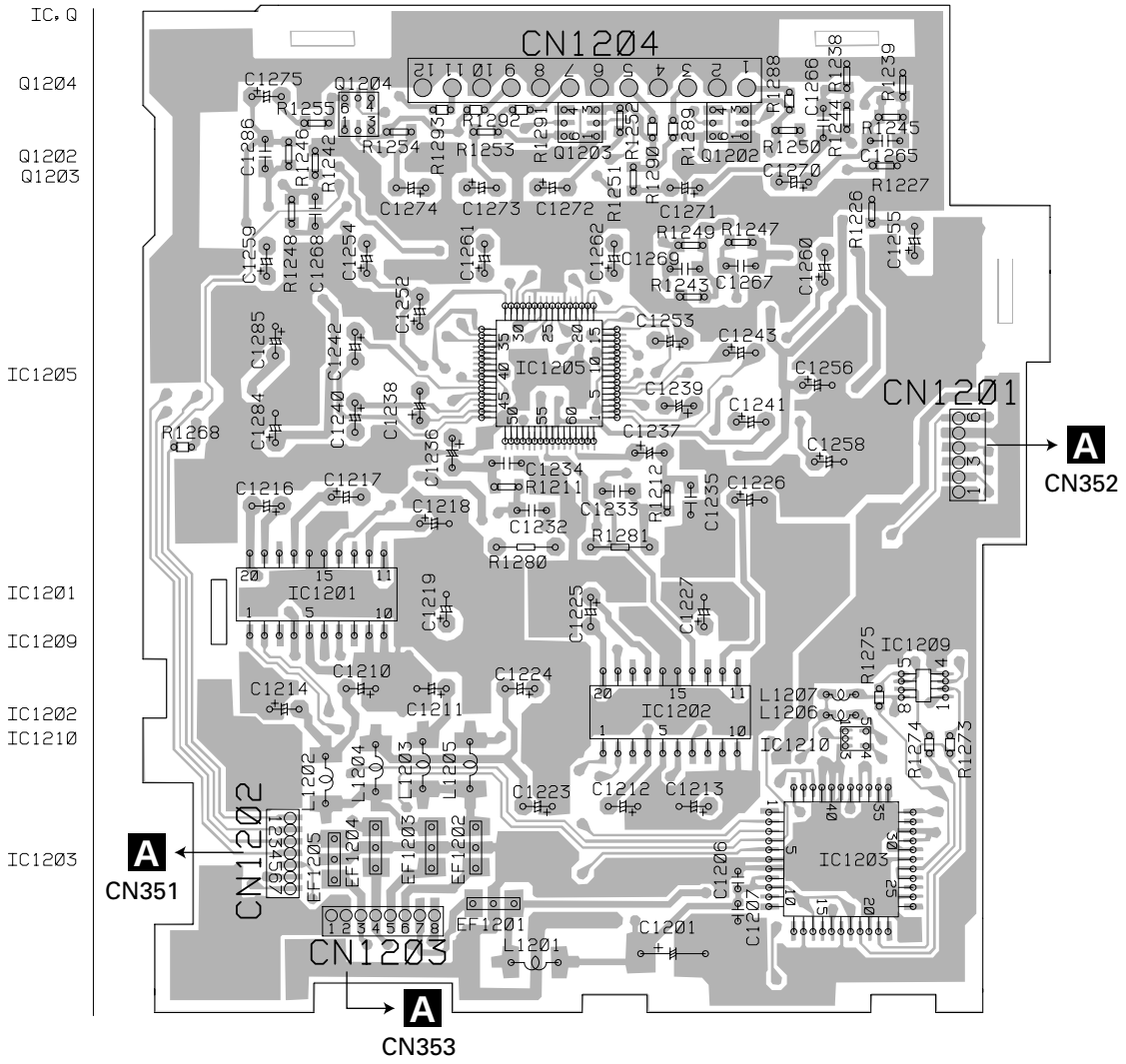
SIDE B



4.3 AUDIO UNIT

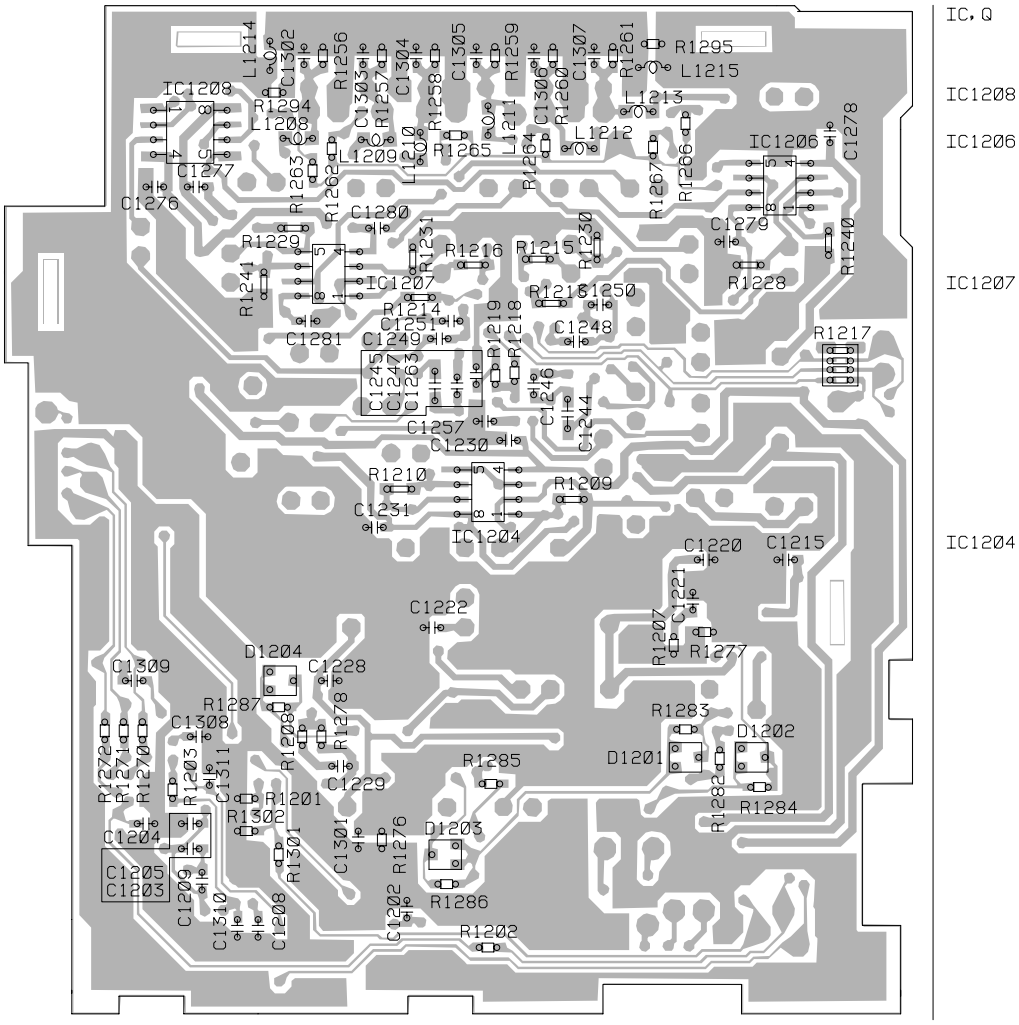
C AUDIO UNIT

SIDE A



C AUDIO UNIT

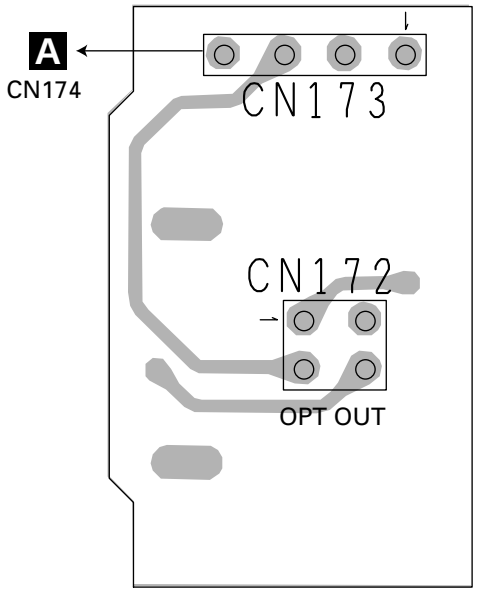
SIDE B



4.4 OPT PCB

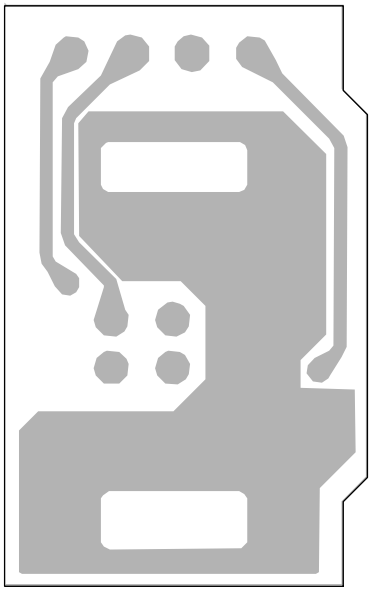
D OPT PCB

SIDE A



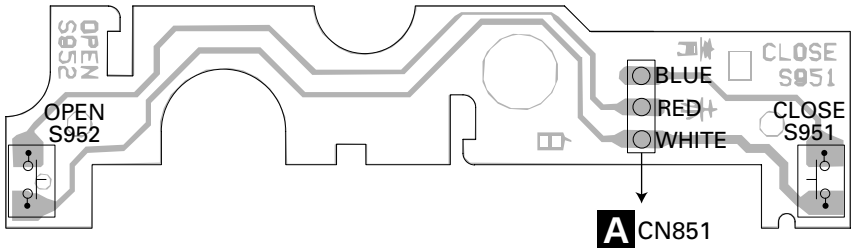
D OPT PCB

SIDE B



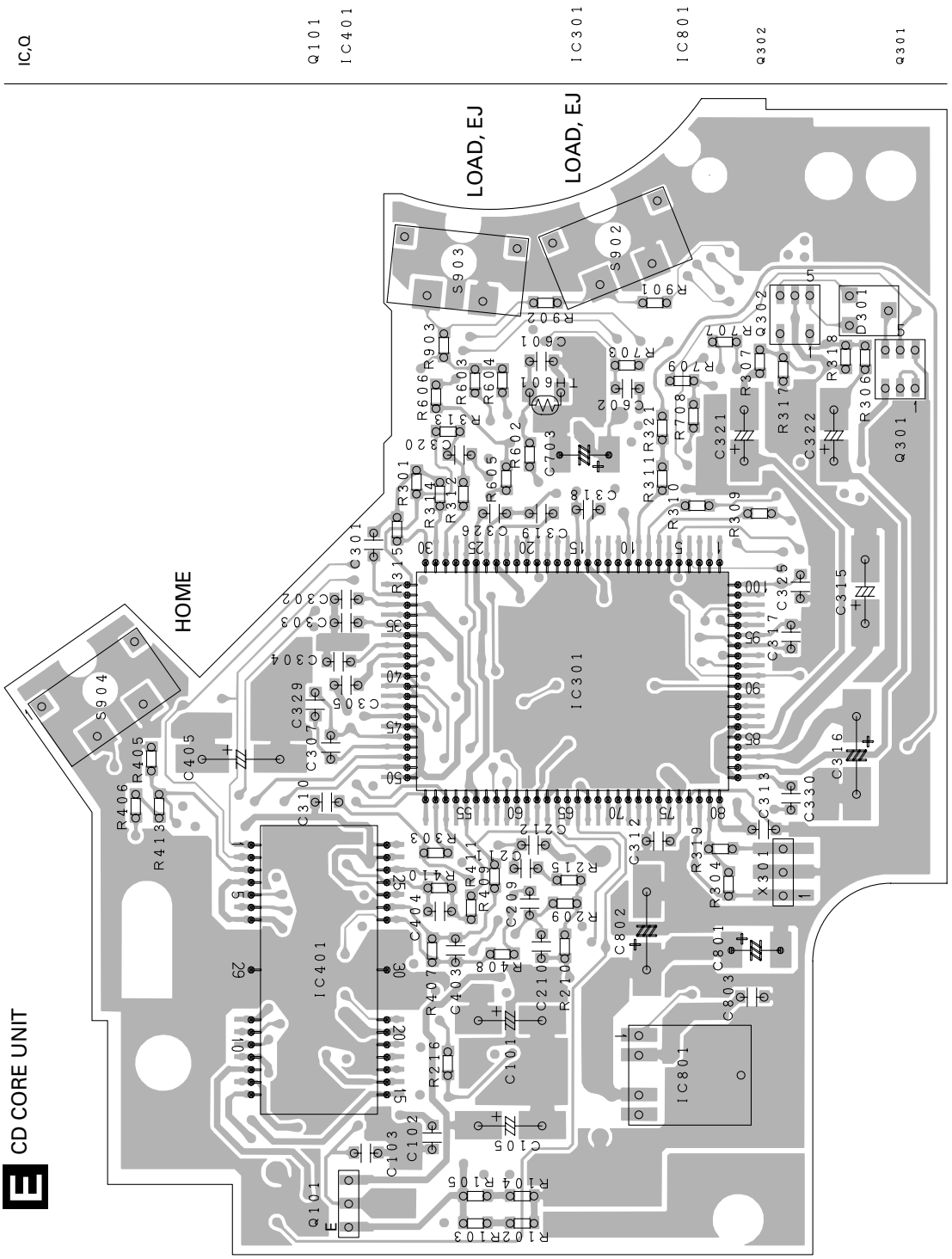
4.5 SWITCH PCB

F SWITCH PCB

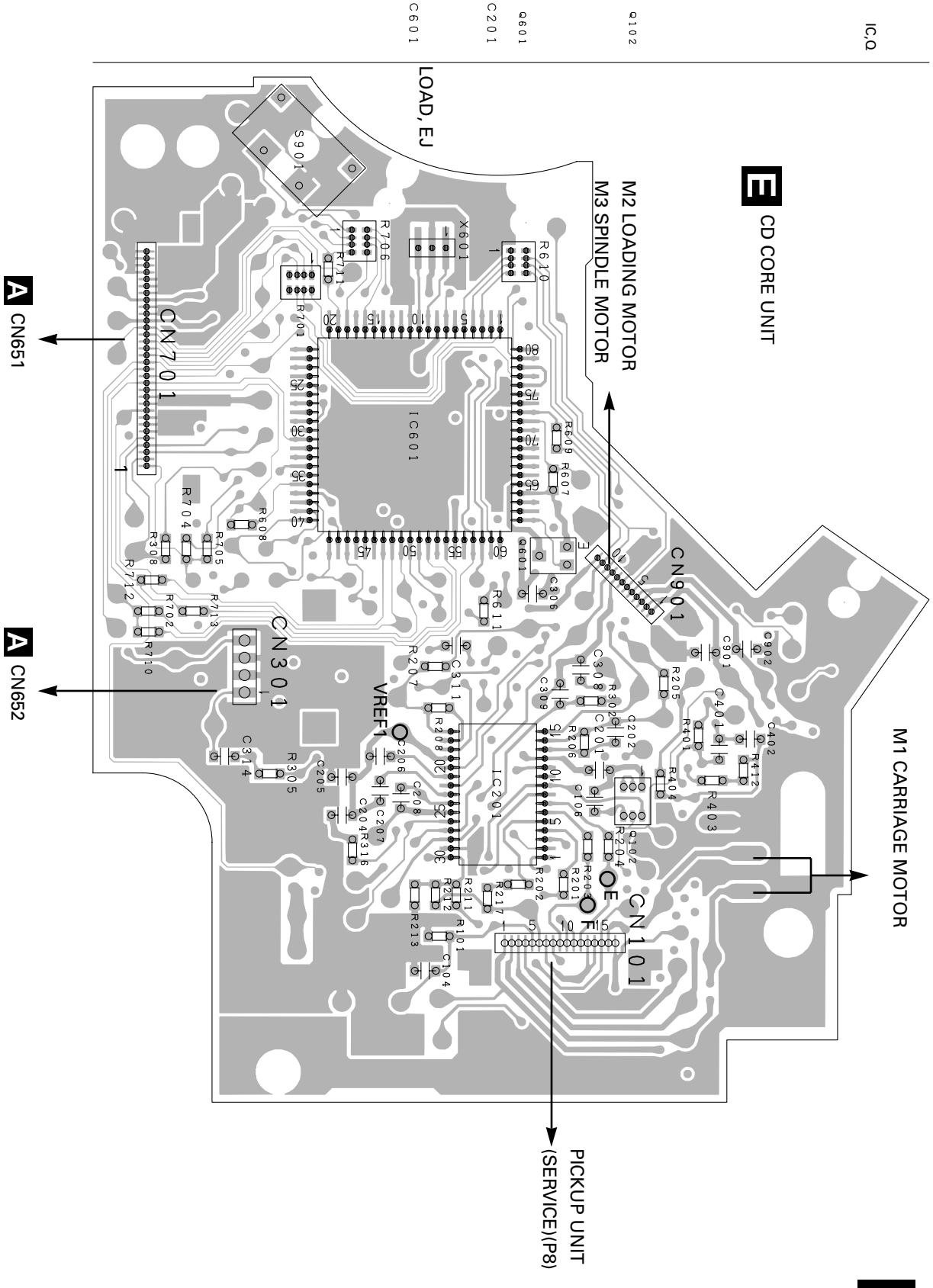


4.6 CD MECHANISM MODULE

SIDE A



SIDE B


IC,Q
Q102
Q601
IC201
IC601
LOAD, EJ
CD CORE UNIT
M2 LOADING MOTOR
M3 SPINDLE MOTOR
M1 CARRIAGE MOTOR
PICKUP UNIT
(SERVICE)(P8)
A CN651
A CN652
CN701
CN301
CN901
CN101
VREF1
OE
OF
S901
X601
IC601
IC201
Q601
Q102

5. ELECTRICAL PARTS LIST

NOTES:

- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

Chip Resistor

RS1/○S○○○J,RS1/○○S○○○J

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

Audio Control Unit
Consists of
Audio Control PCB
OPT PCB

A D Unit Number : CWM7514(DEX-P9/UC)
Unit Name : Audio Control Unit

MISCELLANEOUS

=====Circuit Symbol and No.		===Part Name	Part No.
IC	101	IC	HA12187FP
IC	102	IC	TA2050S
IC	103	IC	TC7S04FU
IC	121	IC	BA3131FS
IC	122	IC	NJM4580M
IC	171	IC	TC7WH04FU
IC	172	IC	TC7SET08FU
IC	173	IC	NJM78L05UA
IC	201	IC	PCM1800
IC	221	IC	LC89055WHS-RA8
IC	251	IC	TC74HCT157AF
IC	261	IC	SM5849AF
IC	262	IC	TC7WH34FU
IC	263	IC	TC7SH08FU
IC	264	IC	TC7SH02FU
IC	281	IC	PD0236AM
IC	301	IC	TC9271FS
IC	302	IC	TC7SET04FU
IC	321	IC	TC7SU04FU
IC	322	IC	TC7S04FU
IC	401	IC	S-81250SGUP
IC	601	IC	PE5209A
IC	661	IC	TC7SU04FU
IC	662	IC	TC7S04FU
IC	701	IC	AN8015SH
IC	851	IC	BA6288FS
IC	941	IC	TPD1018F
IC	961	IC	S-80834ANUP-EDY
Q	101	Transistor	2SA1037K
Q	102	Transistor	DTC124EU
Q	103	Transistor	2SC4081
Q	121	Transistor	IMD2A
Q	153	Transistor	IMH3A
Q	154	Transistor	DTA114EU
Q	171	Transistor	2SC2412K
Q	172	Transistor	2SC4453
Q	173	Transistor	2SB1238
Q	174	Transistor	DTC114EU
Q	261	Transistor	2SD1767
Q	301	Transistor	DTC114EU
Q	401	Transistor	2SC4081
Q	601	Transistor	DTA114EU
Q	661	Transistor	IMD2A
Q	701	Transistor	2SC2812
Q	702	Transistor	2SA1797
Q	703	Transistor	2SA1179
Q	801	Transistor	2SD1760F5
Q	802	Transistor	IMD2A
Q	803	Transistor	2SD2396
Q	804	Transistor	2SB1238
Q	805	Transistor	DTC124EU
Q	806	Transistor	2SD1859
Q	807	Transistor	IMD2A
Q	808	Transistor	IMD2A
Q	851	Transistor	2SD1760F5
Q	852	Transistor	DTA114EU
Q	853	Transistor	DTC124EU
Q	911	Transistor	2SD1760F5
Q	912	Transistor	IMD2A
Q	921	Transistor	2SD2396
Q	922	Transistor	DTC114EU
Q	923	Transistor	2SB1243
Q	931	Transistor	IMX1
Q	932	Transistor	DTC114EU
Q	951	Transistor	2SA1576
Q	962	Transistor	2SC4081
Q	971	Transistor	2SD2396
Q	975	Transistor	2SB1238
Q	981	Transistor	2SC4081
Q	982	Transistor	2SC4081
Q	983	Transistor	IMD2A
Q	991	Transistor	IMD2A
Q	998	Transistor	2SD2396
D	101	Diode	DAN202U
D	102	Diode	1SS355
D	171	Diode	1SS352
D	221	Diode Network	DA204U
D	222	Diode Network	DA204U
D	261	Diode	HZS4LL(A)
D	262	Diode Network	DA204U
D	263	Diode Network	DA204U
D	264	Diode Network	DA204U
D	265	Diode Network	DA204U
D	281	Diode Network	DA204U
D	282	Diode Network	DA204U
D	401	Diode	ERA15-02VH
D	402	Diode	HZS16(2)
D	701	Diode	SC802-06
D	801	Diode Network	DA204U
D	802	Diode Network	DA204U
D	803	Diode Network	DA204U
D	804	Diode Network	DA204U
D	805	Diode	MA3056(M)
D	806	Diode	HZS9L(C2)
D	807	Diode Network	DA204U
D	808	Diode Network	DA204U
D	810	Diode	MA3062(M)
D	811	Diode	HZS9L(C2)
D	851	Diode	HZS7L(C3)
D	852	Diode	1SS133

=====Circuit Symbol and No.		===Part Name	Part No.
D	853	Diode	1SS133
D	901	Diode	ERA15-02VH
D	911	Diode	ERA15-02VH
D	912	Diode	HZS6L(B1)
D	921	Diode	HZS9L(B3)
D	922	Diode	DAN202U
D	931	Diode	HZS7L(A1)
D	932	Diode	HZS7L(C3)
D	933	Diode	ERA15-02VH
D	943	Diode	ERA15-02VH
D	944	Diode	ERA15-02VH
D	951	Diode	DAN202U
D	961	Diode	1SS355
D	972	Diode	HZS6L(B1)
D	975	Diode	HZS6L(B1)
D	981	Diode	DAN202U
D	982	Diode	HZS9L(A2)
D	985	Diode	1SS355
D	991	Diode	HZS9L(B1)
ZNR	451	Surge Protector	DSP-201M-A21F
L	101	Inductor	LCTB3R3K2125
L	171	Inductor	LCTB2R7K2125
L	172	Inductor	LCTB1R0K2125
L	173	Inductor	LCTB100K2125
L	174	Inductor	CTF1407
L	201	Inductor	CTF1305
L	202	Inductor	CTF1305
L	221	Inductor	LCTA1R0J3225
L	222	Inductor	LCTA1R0J3225
L	251	Inductor	CTF1305
L	261	Inductor	LCTA1R0J3225
L	262	Inductor	CTF1305
L	263	Inductor	CTF1305
L	264	Inductor	CTF1305
L	265	Inductor	CTF1305
L	281	Inductor	LCTB1R0K2125
L	301	Inductor	LCTA1R0J3225
L	302	Inductor	LCTB100K2125
L	321	Inductor	CTF1305
L	322	Inductor	LCTB100K2125
L	401	Ferri-Inductor	LAU2R2K
L	402	Ferri-Inductor	LAU4R7K
L	404	Inductor	LCTA1R0J4532
L	430	Inductor	CTF1295
L	601	Inductor	LCTA100J2520
L	602	Inductor	LCTA2R2J2520
L	604	Inductor	LCTA2R2J2520
L	605	Inductor	LCTA2R2J2520
L	651	Ferri-Inductor	LAU2R2K
L	661	Inductor	LCTB100K2125
L	662	Inductor	LCTB100K2125
L	701	Choke Coil 220µH	CTH1166
L	702	Choke Coil 220µH	CTH1166
L	703	Choke Coil 220µH	CTH1166
L	801	Inductor	LAU100K
L	802	Inductor	CTF1489
L	951	Ferri-Inductor	LAU2R2K
X	221	Crystal Resonator 12.288MHz	CSS1416
X	321	Crystal Resonator 11.2896MHz	CSS1088
X	601	Radiator 12.5829MHz	CSS1495
X	661	Crystal Resonator 16.9344MHz	CSS1067
IL	801	Lamp 40mA,14V	CEL1593
FU	911	Fuse 200mA	CEK1189
FU	971	Fuse 400mA	CEK1184
		FM/AM Tuner Unit	CWE1605
SP	641	Buzzer	CPV1050
EF	901	EMI Filter	CCG1003

RESISTORS

=====Circuit Symbol and No.		===Part Name	Part No.
R	101		RS1/10S101J
R	102		RS1/10S620J
R	103		RS1/10S101J
R	104		RS1/10S152J
R	105		RS1/16S103J
R	106		RS1/10S562J
R	107		RS1/16S332J
R	109		RS1/16S181J
R	110		RS1/16S181J
R	111		RS1/16S223J
R	112		RS1/16S223J
R	113		RS1/16S102J
R	114		RS1/16S102J
R	115		RD1/4PU560J
R	116		RS1/16S472J
R	117		RS1/16S224J
R	118		RS1/16S681J
R	119		RS1/16S681J
R	121		RS1/16S622J
R	122		RS1/16S622J
R	123		RS1/16S392J
R	124		RS1/16S392J
R	125		RS1/16S362J
R	126		RS1/16S362J
R	127		RS1/16S153J
R	128		RS1/16S153J
R	135		RS1/16S472J
R	136		RS1/16S472J
R	137		RS1/16S472J
R	138		RS1/16S472J
R	161		RS1/16S102J
R	162		RS1/16S102J
R	163		RS1/16S332J
R	164		RS1/16S332J
R	165		RS1/16S104J
R	166		RS1/16S104J
R	171		RS1/16S473J
R	172		RD1/4PU272J
R	173		RS1/16S102J
R	174		RS1/16S102J
R	175		RS1/16S473J
R	176		RS1/16S102J
R	177		RS1/16S470J
R	181		RN1/16SE1101D
R	182		RN1/16SE1001D
R	183		RN1/16SE3900D
R	201		RAB4C471J
R	202		RS1/16S103J
R	203		RS1/16S561J
R	221		RN1/16SE1002D
R	222		RN1/16SE5101D
R	223		RN1/16SE7501D
R	224		RN1/16SC75R0D
R	225		RAB4C221J
R	227		RS1/16S471J
R	228		RN1/16SE1003D
R	229		RS1/16S101J
R	230		RS1/16S101J
R	231		RS1/16S101J
R	232		RS1/16S103J
R	235		RAB4C101J
R	236		RS1/16S103J
R	251		RAB4C101J
R	262		RAB4C221J
R	263		RS1/16S271J

=====Circuit Symbol and No.===Part Name			Part No.
R	265		RAB4C101J
R	266		RS1/16S222J
R	269		RS1/16S272J
R	270		RS1/16S152J
R	271		RS1/16S272J
R	272		RS1/16S221J
R	273		RS1/16S221J
R	281		RAB4C101J
R	282		RS1/16S681J
R	301		RN1/16SE1000D
R	302		RN1/16SE1000D
R	321		RN1/16SE6800D
R	322		RN1/16SE1003D
R	323		RS1/16S470J
R	352		RAB4C0R0J
R	401		RS1/16S473J
R	402		RS1/16S473J
R	403		RS1/16S681J
R	404		RS1/16S681J
R	409		RS1/16S681J
R	410		RS1/16S103J
R	411		RS1/16S681J
R	412		RS1/16S681J
R	413		RS1/16S681J
R	414		RS1/16S473J
R	415		RS1/16S472J
R	416		RS1/16S473J
R	417		RS1/16S473J
R	418		RS1/16S473J
R	419		RS1/16S222J
R	420		RS1/16S222J
R	423		RS1/16S0R0J
R	424		RS1/16S393J
R	429		RS1/16S0R0J
R	431		RS1/8S151J
R	601		RS1/16S0R0J
R	602		RS1/16S473J
R	604		RS1/16S473J
R	605		RS1/16S473J
R	610		RS1/16S473J
R	611		RS1/16S473J
R	613		RAB4C102J
R	615		RS1/16S473J
R	616		RS1/16S473J
R	617		RS1/16S473J
R	618		RS1/16S473J
R	619		RS1/16S0R0J
R	621		RS1/16S681J
R	622		RS1/16S102J
R	625		RS1/16S102J
R	633		RS1/16S102J
R	641		RS1/16S102J
R	651		RS1/16S221J
R	652		RS1/16S221J
R	653		RS1/16S222J
R	654		RS1/16S221J
R	655		RS1/16S222J
R	656		RS1/16S221J
R	658		RN1/16SC22R0D
R	661		RN1/16SE1003D
R	662		RN1/16SC47R0D
R	663		RS1/16S152J
R	671		RS1/16S473J
R	672		RS1/16S473J
R	673		RS1/16S473J
R	674		RS1/16S473J
R	676		RS1/16S473J
R	677		RS1/16S222J
R	678		RS1/16S222J
R	679		RS1/16S222J

=====Circuit Symbol and No.===Part Name			Part No.
R	680		RS1/16S104J
R	701		RN1/10SE8201D
R	702		RN1/10SE3601D
R	703		RS1/10S104J
R	704		RN1/16SE1002D
R	705		RN1/10SE3302D
R	706		RS1/10S101J
R	707		RS1/10S222J
R	708		RS1/10S222J
R	709		RS1/16S223J
R	710		RN1/10SE1803D
R	711		RS1/10S681J
R	712		RN1/10SE1001D
R	801		RS1/8S222J
R	802		RS1/8S222J
R	803		RS1/8S222J
R	804		RS1/8S103J
R	805		RS1/8S472J
R	806		RS1/8S222J
R	807		RS1/16S1R0J
R	808		RS1/8S222J
R	809		RS1/16S472J
R	810		RS1/16S681J
R	812		RS1/8S152J
R	813		RS1/16S1R0J
R	814		RD1/4PU391J
R	818		RS1/16S472J
R	821		RS1/10S1R0J
R	822		RS1/16S222J
R	823		RS1/16S222J
R	824		RS1/16S104J
R	825		RS1/16S473J
R	851		RD1/4PU271J
R	852		RS1/16S102J
R	853		RS1/16S102J
R	862		RS1/16S102J
R	863		RS1/16S104J
R	864		RS1/16S102J
R	865		RS1/16S104J
R	911		RS1/16S223J
R	912		RS1/10S472J
R	921		RS1/10S1R0J
R	923		RD1/4PU821J
R	924		RD1/4PU152J
R	925		RS1/16S223J
R	931		RS1/16S472J
R	932		RS1/16S473J
R	933		RS1/16S103J
R	934		RS1/16S473J
R	935		RS1/16S104J
R	936		RS1/16S103J
R	941		RS1/16S102J
R	951		RS1/16S153J
R	952		RS1/16S472J
R	953		RS1/16S472J
R	954		RS1/16S102J
R	962		RS1/16S102J
R	963		RS1/16S473J
R	964		RS1/16S822J
R	965		RS1/16S472J
R	971		RS1/16S392J
R	975		RS1/16S102J
R	982		RS1/16S473J
R	983		RS1/16S103J
R	984		RS1/16S473J
R	985		RS1/16S102J
R	986		RS1/16S224J
R	989		RS1/16S473J
R	991		RS1/8S101J
R	992		RS1/8S101J

CAPACITORS

=====Circuit Symbol and No.	Part Name	Part No.
C 101		CKSRYB104K16
C 102		CKSRYB104K16
C 103		CEJQ1R0M50
C 104		CEJQ1R0M50
C 105		CEJQ1R0M50
C 106		CEJQ1R0M50
C 107		CEJQ100M16
C 108		CKSRYB473K25
C 109		CCSRCH101J50
C 110		CCSRCH101J50
C 111		CKSRYB104K16
C 121		CEVNP220M10
C 122		CEVNP220M10
C 123		CEV220M10
C 124		CEV220M10
C 125		CCSRCH121J50
C 126		CCSRCH121J50
C 127		CCSRCH221J50
C 128		CCSRCH221J50
C 129		CKSRYB223K25
C 130		CEV101M10
C 131		CEV220M10
C 132		CEV101M10
C 133		CKSRYB104K16
C 134		CKSRYB104K16
C 137		CCSRCH151J50
C 138		CCSRCH151J50
C 151		CEJQ1R0M50
C 152		CEJQ1R0M50
C 161		CKSRYB273K16
C 162		CKSRYB273K16
C 163		CKSRYB104K16
C 171		CKSRYB104K16
C 172		CKSRYB104K16
C 173		CASA6R8M6R3
C 174		CKSRYB103K50
C 175		CEJQ101M16
C 176		CCSRCH220J50
C 177		CKSRYB104K16
C 182		CKSRYB103K50
C 183		CCSRCH150J50
C 184		CKSRYB104K16
C 186		CKSYB106K6R3
C 187		CKSYB106K6R3
C 201		CEV1R0M50
C 202		CEV1R0M50
C 203		CSZSR100M16
C 204		CKSRYB104K16
C 205		CKSYB106K6R3
C 206		CKSRYB104K16
C 207		CSZS4R7M16
C 208		CSZS4R7M16
C 209		CCSRCH471J50
C 210		CCSRCH471J50
C 212		CKSRYB104K16
C 213		CKSRYB102K50
C 214		CKSRYB224K16
C 216		CCSRCH220J50
C 221		CKSRYB104K16
C 222		CKSRYB473K25
C 223		CKSRYB473K25
C 224		CKSRYB473K25
C 225		CKSRYB473K25
C 226		CEV100M10
C 227		CEV100M10
C 228		CEV470M6R3
C 229		CEV470M6R3
C 230		CFHSP104J16
C 231		CKSRYB104K16
C 232		CKSRYB104K16
C 234		CKSRYB104K16
C 235		CFHSQ103J16
C 236		CFHSP104J16
C 237		CFHSQ103J16
C 238		CCSRCH270J50
C 239		CCSRCH330J50
C 240		CKSRYB103K50
C 251		CKSRYB104K16
C 252		CKSRYB473K25
C 253	10µF/10V	CCH1424
C 255		CCSRCH101J50
C 261		CKSRYB473K25
C 262		CEV470M4
C 263		CEV100M10
C 264		CKSRYB473K25
C 265		CKSRYB473K25
C 266		CKSRYB104K16
C 267		CKSRYB104K16
C 268		CKSRYB104K16
C 269		CKSRYB104K16
C 270		CKSRYB104K16
C 271		CKSRYB102K50
C 273		CEJQ100M16
C 274		CEV100M10
C 275		CKSYB106K6R3
C 276		CKSRYB103K50
C 277		CKSYB106K6R3
C 278		CKSRYB103K50
C 279		CKSYB106K6R3
C 281		CKSRYB104K16
C 282		CKSRYB473K25
C 283		CEV100M10
C 301		CKSRYB473K25
C 302		CCSRCH101J50
C 303	10µF/10V	CCH1424
C 304		CKSYB106K6R3
C 305		CKSRYB103K50
C 321		CCSRCH150J50
C 322		CCSRCH150J50
C 323		CKSRYB473K25
C 324		CCSRCH101J50
C 325		CKSYB106K6R3
C 326		CCSRCH101J50
C 327		CKSYB106K6R3
C 328		CCSRCH221J50
C 330		CCSRCH470J50
C 403		CKSRYB473K25
C 404		CEJQ101M10
C 405		CKSRYB103K50
C 406		CEAT221M10
C 407		CKSQYB103K50
C 408		CKSRYB223K25
C 409		CKSRYB223K25
C 411		CKSRYB472K50
C 430		CCSRCH101J50
C 431		CEAL101M16
C 432		CKSRYB104K16
C 434		CCSRCH101J50
C 436		CCSRCH102J50
C 437		CCSRCH101J50
C 438		CCSRCH101J50
C 512		CKSRYB104K16
C 601		CKSYB475K10
C 602		CKSRYB103K50
C 603		CKSRYB104K16
C 604		CCSRCH270J50
C 605		CCSRCH270J50
C 606		CKSRYB105K10
C 607		CKSRYB103K50
C 608		CKSRYB103K50

=====Circuit Symbol and No.		===Part Name	Part No.
C	609		CCSRCH101J50
C	610		CKSRYB103K50
C	611		CKSRYB103K50
C	613		CCSRCH101J50
C	651		CEJQ101M10
C	652		CKSRYB473K25
C	653		CKSRYB473K25
C	654		CCSRCH471J50
C	655		CCSRCH471J50
C	656		CCSRCH471J50
C	657		CCSRCH471J50
C	659		CCSRCH221J50
C	660		CCSRCH221J50
C	663		CKSRYB103K50
C	664		CKSRYB473K25
C	665		CCSRCH100D50
C	666		CCSRCH100D50
C	667		CKSRYB103K50
C	668		CKSYB106K6R3
C	669		CKSYB106K6R3
C	670		CCSRCH220J50
C	701		CKSRYB223K50
C	702		CCSRCH151J50
C	703		CKSRYB104K25
C	704		CKSRYB104K25
C	705		CKSRYB104K25
C	706		CCSRCH101J50
C	707		CKSYB225K16
C	708		CCSRCH471J50
C	709		CEHAZL330M16
C	710		CEHAZL330M16
C	711		CEHAZL330M16
C	712		CEHAZL680M16
C	713		CKSYB475K10
C	714		CKSQYB225K10
C	802		CKSRYB104K16
C	803		CEJQ470M10
C	804		CKSRYB103K50
C	806		CKSRYB103K50
C	807		CKSRYB102K50
C	814		CEJQ470M10
C	815		CKSRYB104K16
C	816		CKSQYB225K10
C	820		CKSQYB225K10
C	821		CEAT101M16
C	822		CCSRCH101J50
C	823		CKSRYB105K10
C	824		CKSQYB225K10
C	825		CKSRYB104K16
C	851		CKSRYB103K50
C	852		CKSRYB104K16
C	853		CEJQ220M10
C	855		CKSRYB102K50
C	856		CCSRCH101J50
C	857		CCSRCH101J50
C	858		CCSRCH101J50
C	901	4700µF/16V	CCH1416
C	902		CKSRYB104K16
C	911	1500µF/16V	CCH1312
C	912		CKSRYB472K50
C	913		CKSRYB103K50
C	914		CEJQ470M10
C	921	330µF/10V	CCH1181
C	922		CKSRYB103K50
C	923		CEJQ101M16
C	931		CKSQYB105K16
C	932		CKSRYB104K16
C	941		CKSYB225K16
C	943		CKSRYB104K16
C	961		CKSRYB102K50

=====Circuit Symbol and No.		===Part Name	Part No.
C	962		CKSRYB103K50
C	963		CKSYB225K16
C	971		CEJQ101M16
C	972		CKSRYB472K50
C	973		CKSRYB103K50
C	974	47µF/25V	CCH1394
C	975		CEJQ100M16
C	976		CKSRYB472K50
C	977		CKSRYB103K50
C	978		CEJQ470M10
C	979		CEJQ100M16
C	980		CEJQ100M16
C	981		CEJQ220M16
C	991		CKSRYB473K25
C	992		CKSRYB102K50
C	993	100µF/16V	CCH1395
C	994		CEV100M10

Audio Control Unit
Consists of
Audio Control PCB
OPT PCB

A D Unit Number : CWM7515(DEX-P9/EW)
Unit Name : Audio Control Unit

MISCELLANEOUS

IC	101	IC	HA12187FP
IC	102	IC	TA2050S
IC	103	IC	TC7S04FU
IC	121	IC	BA3131FS
IC	122	IC	NJM4580M
IC	171	IC	TC7WH04FU
IC	172	IC	TC7SET08FU
IC	173	IC	NJM78L05UA
IC	201	IC	PCM1800
IC	221	IC	LC89055WHS-RA8
IC	251	IC	TC74HCT157AF
IC	261	IC	SM5849AF
IC	262	IC	TC7WH34FU
IC	263	IC	TC7SH08FU
IC	264	IC	TC7SH02FU
IC	281	IC	PD0236AM
IC	301	IC	TC9271FS
IC	302	IC	TC7SET04FU
IC	321	IC	TC7SU04FU
IC	322	IC	TC7S04FU
IC	401	IC	S-81250SGUP
IC	501	IC	PM4009A
IC	601	IC	PE5208A
IC	661	IC	TC7SU04FU
IC	662	IC	TC7S04FU
IC	701	IC	AN8015SH
IC	851	IC	BA6288FS
IC	941	IC	TPD1018F
IC	961	IC	S-80834ANUP-EDY
Q	101	Transistor	2SA1037K
Q	102	Transistor	DTC124EU
Q	103	Transistor	2SC4081
Q	121	Transistor	IMD2A
Q	151	Transistor	2SD1757K
Q	152	Transistor	2SD1757K
Q	153	Transistor	IMH3A
Q	154	Transistor	DTA114EU
Q	155	Transistor	2SC4081
Q	156	Transistor	DTA124EU
Q	171	Transistor	2SC2412K
Q	172	Transistor	2SC4453
Q	173	Transistor	2SB1238
Q	174	Transistor	DTC114EU
Q	261	Transistor	2SD1767
Q	301	Transistor	DTC114EU

=====Circuit Symbol and No.		===Part Name	Part No.
Q	401	Transistor	2SC4081
Q	402	Transistor	2SC2412K
Q	501	Transistor	DTA123EU
Q	601	Transistor	DTA114EU
Q	661	Transistor	IMD2A
Q	701	Transistor	2SC2812
Q	702	Transistor	2SA1797
Q	703	Transistor	2SA1179
Q	801	Transistor	2SD1760F5
Q	802	Transistor	IMD2A
Q	803	Transistor	2SD2396
Q	804	Transistor	2SB1238
Q	805	Transistor	DTC124EU
Q	806	Transistor	2SD1859
Q	807	Transistor	IMD2A
Q	808	Transistor	IMD2A
Q	851	Transistor	2SD1760F5
Q	852	Transistor	DTA114EU
Q	853	Transistor	DTC124EU
Q	911	Transistor	2SD1760F5
Q	912	Transistor	IMD2A
Q	921	Transistor	2SD2396
Q	922	Transistor	DTC114EU
Q	923	Transistor	2SB1243
Q	931	Transistor	IMX1
Q	932	Transistor	DTC114EU
Q	951	Transistor	2SA1576
Q	962	Transistor	2SC4081
Q	971	Transistor	2SD2396
Q	975	Transistor	2SB1238
Q	981	Transistor	2SC4081
Q	982	Transistor	2SC4081
Q	983	Transistor	IMD2A
Q	991	Transistor	IMD2A
Q	998	Transistor	2SD2396
D	101	Diode	DAN202U
D	102	Diode	1SS355
D	171	Diode	1SS352
D	221	Diode Network	DA204U
D	222	Diode Network	DA204U
D	261	Diode	HZS4LL(A)
D	262	Diode Network	DA204U
D	263	Diode Network	DA204U
D	264	Diode Network	DA204U
D	265	Diode Network	DA204U
D	281	Diode Network	DA204U
D	282	Diode Network	DA204U
D	401	Diode	ERA15-02VH
D	402	Diode	HZS16(2)
D	701	Diode	SC802-06
D	801	Diode Network	DA204U
D	802	Diode Network	DA204U
D	803	Diode Network	DA204U
D	804	Diode Network	DA204U
D	805	Diode	MA3056(M)
D	806	Diode	HZS9L(C2)
D	807	Diode Network	DA204U
D	808	Diode Network	DA204U
D	810	Diode	MA3062(M)
D	811	Diode	HZS9L(C2)
D	851	Diode	HZS7L(C3)
D	852	Diode	1SS133
D	853	Diode	1SS133
D	901	Diode	ERA15-02VH
D	911	Diode	ERA15-02VH

=====Circuit Symbol and No.		===Part Name	Part No.
D	912	Diode	HZS6L(B1)
D	921	Diode	HZS9L(B3)
D	922	Diode	DAN202U
D	931	Diode	HZS7L(A1)
D	932	Diode	HZS7L(C3)
D	933	Diode	ERA15-02VH
D	943	Diode	ERA15-02VH
D	944	Diode	ERA15-02VH
D	951	Diode	DAN202U
D	961	Diode	1SS355
D	972	Diode	HZS6L(B1)
D	975	Diode	HZS6L(B1)
D	981	Diode	DAN202U
D	982	Diode	HZS9L(A2)
D	985	Diode	1SS355
D	991	Diode	HZS9L(B1)
ZNR	451	Surge Protector	DSP-201M-A21F
L	101	Inductor	LCTB3R3K2125
L	171	Inductor	LCTB2R7K2125
L	172	Inductor	LCTB1R0K2125
L	173	Inductor	LCTB100K2125
L	174	Inductor	CTF1407
L	201	Inductor	CTF1305
L	202	Inductor	CTF1305
L	221	Inductor	LCTA1R0J3225
L	222	Inductor	LCTA1R0J3225
L	251	Inductor	CTF1305
L	261	Inductor	LCTA1R0J3225
L	262	Inductor	CTF1305
L	263	Inductor	CTF1305
L	264	Inductor	CTF1305
L	265	Inductor	CTF1305
L	281	Inductor	LCTB1R0K2125
L	301	Inductor	LCTA1R0J3225
L	302	Inductor	LCTB100K2125
L	321	Inductor	CTF1305
L	322	Inductor	LCTB100K2125
L	401	Ferri-Inductor	LAU2R2K
L	402	Ferri-Inductor	LAU4R7K
L	404	Inductor	LCTA1R0J4532
L	430	Inductor	CTF1295
L	501	Inductor	LCTA100J3225
L	503	Inductor	LCTA101J3225
L	504	Inductor	CTF1305
L	601	Inductor	LCTA100J2520
L	602	Inductor	LCTA2R2J2520
L	604	Inductor	LCTA2R2J2520
L	605	Inductor	LCTA2R2J2520
L	651	Ferri-Inductor	LAU2R2K
L	661	Inductor	LCTB100K2125
L	662	Inductor	LCTB100K2125
L	701	Choke Coil 220µH	CTH1166
L	702	Choke Coil 220µH	CTH1166
L	703	Choke Coil 220µH	CTH1166
L	801	Inductor	LAU100K
L	802	Inductor	CTF1489
L	951	Ferri-Inductor	LAU2R2K
X	221	Crystal Resonator 12.288MHz	CSS1416
X	321	Crystal Resonator 11.2896MHz	CSS1088
X	501	Radiator 3.648MHz	CSS1500
X	601	Radiator 12.5829MHz	CSS1495
X	661	Crystal Resonator 16.9344MHz	CSS1067
IL	801	Lamp 40mA,14V	CEL1593
FU	911	Fuse 200mA	CEK1189
FU	971	Fuse 400mA	CEK1184
SP	641	Buzzer	CPV1050
EF	901	EMI Filter	CCG1003
		FM/AM Tuner Unit	CWE1604

RESISTORS

Circuit Symbol and No.		Part Name	Part No.
R	101		RS1/10S101J
R	102		RS1/10S620J
R	103		RS1/10S101J
R	104		RS1/10S152J
R	105		RS1/16S103J
R	106		RS1/10S562J
R	107		RS1/16S332J
R	109		RS1/16S181J
R	110		RS1/16S181J
R	111		RS1/16S223J
R	112		RS1/16S223J
R	113		RS1/16S102J
R	114		RS1/16S102J
R	115		RD1/4PU560J
R	116		RS1/16S472J
R	117		RS1/16S224J
R	118		RS1/16S681J
R	119		RS1/16S681J
R	121		RS1/16S622J
R	122		RS1/16S622J
R	123		RS1/16S392J
R	124		RS1/16S392J
R	125		RS1/16S103J
R	126		RS1/16S103J
R	127		RS1/16S393J
R	128		RS1/16S393J
R	135		RS1/16S472J
R	136		RS1/16S472J
R	137		RS1/16S472J
R	138		RS1/16S472J
R	153		RS1/16S224J
R	154		RS1/16S224J
R	155		RS1/16S222J
R	156		RS1/16S222J
R	157		RS1/16S223J
R	158		RS1/16S223J
R	159		RS1/16S224J
R	160		RS1/16S473J
R	161		RS1/16S102J
R	162		RS1/16S102J
R	163		RS1/16S332J
R	164		RS1/16S332J
R	165		RS1/16S104J
R	166		RS1/16S104J
R	171		RS1/16S473J
R	172		RD1/4PU272J
R	173		RS1/16S102J
R	174		RS1/16S102J
R	175		RS1/16S473J
R	176		RS1/16S102J
R	177		RS1/16S470J
R	181		RN1/16SE1101D
R	182		RN1/16SE1001D
R	183		RN1/16SE3900D
R	201		RAB4C471J
R	202		RS1/16S103J
R	203		RS1/16S561J
R	221		RN1/16SE1002D
R	222		RN1/16SE5101D
R	223		RN1/16SE7501D
R	224		RN1/16SC75R0D
R	225		RAB4C221J
R	227		RS1/16S471J
R	228		RN1/16SE1003D
R	229		RS1/16S101J
R	230		RS1/16S101J
R	231		RS1/16S101J
R	232		RS1/16S103J
R	235		RAB4C101J
R	236		RS1/16S103J
R	251		RAB4C101J
R	262		RAB4C221J
R	263		RS1/16S271J
R	265		RAB4C101J
R	266		RS1/16S222J
R	269		RS1/16S272J
R	270		RS1/16S152J
R	271		RS1/16S272J
R	272		RS1/16S221J
R	273		RS1/16S221J
R	281		RAB4C101J
R	282		RS1/16S681J
R	301		RN1/16SE1000D
R	302		RN1/16SE1000D
R	321		RN1/16SE6800D
R	322		RN1/16SE1003D
R	323		RS1/16S470J
R	352		RAB4C0R0J
R	401		RS1/16S473J
R	402		RS1/16S473J
R	403		RS1/16S681J
R	404		RS1/16S681J
R	405		RS1/16S681J
R	406		RS1/16S102J
R	407		RS1/16S473J
R	409		RS1/16S681J
R	410		RS1/16S103J
R	411		RS1/16S681J
R	412		RS1/16S681J
R	413		RS1/16S681J
R	414		RS1/16S473J
R	415		RS1/16S472J
R	416		RS1/16S473J
R	417		RS1/16S473J
R	418		RS1/16S473J
R	419		RS1/16S222J
R	420		RS1/16S222J
R	421		RS1/16S681J
R	422		RS1/16S681J
R	423		RS1/16S0R0J
R	424		RS1/16S393J
R	426		RS1/16S153J
R	427		RS1/16S474J
R	428		RS1/16S681J
R	429		RS1/16S0R0J
R	431		RS1/8S151J
R	501		RS1/16S102J
R	502		RS1/16S102J
R	503		RS1/16S102J
R	511		RS1/16S102J
R	513		RS1/16S225J
R	518		RS1/16S681J
R	601		RS1/16S0R0J
R	602		RS1/16S473J
R	604		RS1/16S473J
R	605		RS1/16S473J
R	610		RS1/16S473J
R	611		RS1/16S473J
R	613		RAB4C102J
R	616		RS1/16S473J

=====Circuit Symbol and No.		===Part Name	Part No.
R	617		RS1/16S473J
R	618		RS1/16S473J
R	619		RS1/16S0R0J
R	621		RS1/16S681J
R	622		RS1/16S102J
R	625		RS1/16S102J
R	633		RS1/16S102J
R	641		RS1/16S102J
R	651		RS1/16S221J
R	652		RS1/16S221J
R	653		RS1/16S222J
R	654		RS1/16S221J
R	655		RS1/16S222J
R	656		RS1/16S221J
R	658		RN1/16SC22R0D
R	661		RN1/16SE1003D
R	662		RN1/16SC47R0D
R	663		RS1/16S152J
R	671		RS1/16S473J
R	672		RS1/16S473J
R	673		RS1/16S473J
R	674		RS1/16S473J
R	676		RS1/16S473J
R	677		RS1/16S222J
R	678		RS1/16S222J
R	679		RS1/16S222J
R	680		RS1/16S104J
R	701		RN1/10SE8201D
R	702		RN1/10SE3601D
R	703		RS1/10S104J
R	704		RN1/16SE1002D
R	705		RN1/10SE3302D
R	706		RS1/10S101J
R	707		RS1/10S222J
R	708		RS1/10S222J
R	709		RS1/16S223J
R	710		RN1/10SE1803D
R	711		RS1/10S681J
R	712		RN1/10SE1001D
R	801		RS1/8S222J
R	802		RS1/8S222J
R	803		RS1/8S222J
R	804		RS1/8S103J
R	805		RS1/8S472J
R	806		RS1/8S222J
R	807		RS1/16S1R0J
R	808		RS1/8S222J
R	809		RS1/16S472J
R	810		RS1/16S681J
R	812		RS1/8S152J
R	813		RS1/16S1R0J
R	814		RD1/4PU391J
R	818		RS1/16S472J
R	821		RS1/10S1R0J
R	822		RS1/16S222J
R	823		RS1/16S222J
R	824		RS1/16S104J
R	825		RS1/16S473J
R	851		RD1/4PU271J
R	852		RS1/16S102J
R	853		RS1/16S102J
R	862		RS1/16S102J
R	863		RS1/16S104J
R	864		RS1/16S102J
R	865		RS1/16S104J
R	911		RS1/16S223J
R	912		RS1/10S472J
R	921		RS1/10S1R0J
R	923		RD1/4PU821J
R	924		RD1/4PU152J

=====Circuit Symbol and No.		===Part Name	Part No.
R	925		RS1/16S223J
R	931		RS1/16S472J
R	932		RS1/16S473J
R	933		RS1/16S103J
R	934		RS1/16S473J
R	935		RS1/16S104J
R	936		RS1/16S103J
R	941		RS1/16S102J
R	951		RS1/16S153J
R	952		RS1/16S472J
R	953		RS1/16S472J
R	954		RS1/16S102J
R	962		RS1/16S102J
R	963		RS1/16S473J
R	964		RS1/16S822J
R	965		RS1/16S472J
R	971		RS1/16S392J
R	975		RS1/16S102J
R	982		RS1/16S473J
R	983		RS1/16S103J
R	984		RS1/16S473J
R	985		RS1/16S102J
R	986		RS1/16S224J
R	989		RS1/16S473J
R	991		RS1/8S101J
R	992		RS1/8S101J

CAPACITORS

C	101		CKSRYB104K16
C	102		CKSRYB104K16
C	103		CEJQ1R0M50
C	104		CEJQ1R0M50
C	105		CEJQ1R0M50
C	106		CEJQ1R0M50
C	107		CEJQ100M16
C	108		CKSRYB473K25
C	109		CCSRCH101J50
C	110		CCSRCH101J50
C	111		CKSRYB104K16
C	121		CEVNP220M10
C	122		CEVNP220M10
C	123		CEV220M10
C	124		CEV220M10
C	125		CCSRCH470J50
C	126		CCSRCH470J50
C	127		CCSRCH221J50
C	128		CCSRCH221J50
C	129		CKSRYB223K25
C	130		CEV101M10
C	131		CEV220M10
C	132		CEV101M10
C	133		CKSRYB104K16
C	134		CKSRYB104K16
C	137		CCSRCH151J50
C	138		CCSRCH151J50
C	151		CEJQ1R0M50
C	152		CEJQ1R0M50
C	153		CKSRYB223K25
C	161		CKSRYB153K25
C	162		CKSRYB153K25
C	163		CKSRYB104K16
C	171		CKSRYB104K16
C	172		CKSRYB104K16
C	173		CASA6R8M6R3
C	174		CKSRYB103K50
C	175		CEJQ101M16
C	176		CCSRCH220J50
C	177		CKSRYB104K16

=====Circuit Symbol and No.		===Part Name	Part No.
C	182		CKSRYB103K50
C	183		CCSRCH150J50
C	184		CKSRYB104K16
C	186		CKSYB106K6R3
C	187		CKSYB106K6R3
C	201		CEV1R0M50
C	202		CEV1R0M50
C	203		CSZSR100M16
C	204		CKSRYB104K16
C	205		CKSYB106K6R3
C	206		CKSRYB104K16
C	207		CSZS4R7M16
C	208		CSZS4R7M16
C	209		CCSRCH471J50
C	210		CCSRCH471J50
C	212		CKSRYB104K16
C	213		CKSRYB102K50
C	214		CKSRYB224K16
C	216		CCSRCH220J50
C	221		CKSRYB104K16
C	222		CKSRYB473K25
C	223		CKSRYB473K25
C	224		CKSRYB473K25
C	225		CKSRYB473K25
C	226		CEV100M10
C	227		CEV100M10
C	228		CEV470M6R3
C	229		CEV470M6R3
C	230		CFHSP104J16
C	231		CKSRYB104K16
C	232		CKSRYB104K16
C	234		CKSRYB104K16
C	235		CFHSQ103J16
C	236		CFHSP104J16
C	237		CFHSQ103J16
C	238		CCSRCH270J50
C	239		CCSRCH330J50
C	240		CKSRYB103K50
C	251		CKSRYB104K16
C	252		CKSRYB473K25
C	253	10µF/10V	CCH1424
C	255		CCSRCH101J50
C	261		CKSRYB473K25
C	262		CEV470M4
C	263		CEV100M10
C	264		CKSRYB473K25
C	265		CKSRYB473K25
C	266		CKSRYB104K16
C	267		CKSRYB104K16
C	268		CKSRYB104K16
C	269		CKSRYB104K16
C	270		CKSRYB104K16
C	271		CKSRYB102K50
C	273		CEJQ100M16
C	274	22µF/6R3V	CCH1426
C	275		CKSYB106K6R3
C	276		CKSRYB103K50
C	277		CKSYB106K6R3
C	278		CKSRYB103K50
C	279		CKSYB106K6R3
C	281		CKSRYB104K16
C	282		CKSRYB473K25
C	283		CEV100M10
C	301		CKSRYB473K25
C	302		CCSRCH101J50

=====Circuit Symbol and No.		===Part Name	Part No.
C	303	10µF/10V	CCH1424
C	304		CKSYB106K6R3
C	305		CKSRYB103K50
C	321		CCSRCH150J50
C	322		CCSRCH150J50
C	323		CKSRYB473K25
C	324		CCSRCH101J50
C	325		CKSYB106K6R3
C	326		CCSRCH101J50
C	327		CKSYB106K6R3
C	328		CCSRCH221J50
C	330		CCSRCH470J50
C	401		CKSRYB182K50
C	403		CKSRYB473K25
C	404		CEJQ101M10
C	405		CKSRYB103K50
C	406		CEAT221M10
C	407		CKSQYB103K50
C	408		CKSRYB223K25
C	409		CKSRYB223K25
C	411		CKSRYB472K50
C	412		CKSRYB472K50
C	430		CCSRCH101J50
C	431		CEAL101M16
C	432		CKSRYB104K16
C	434		CCSRCH101J50
C	436		CCSRCH102J50
C	437		CCSRCH101J50
C	438		CCSRCH101J50
C	501		CEV220M6R3
C	502		CCSRCH101J50
C	503		CCSRCH270J50
C	504		CCSRCH270J50
C	505		CKSRYB104K25
C	506		CCSRCH471J50
C	507		CCSRCH471J50
C	508		CKSRYB104K25
C	509		CEV220M6R3
C	511		CKSRYB103K50
C	512		CKSRYB104K16
C	513		CCSRCH471J50
C	601		CKSYB475K10
C	602		CKSRYB103K50
C	603		CKSRYB104K16
C	604		CCSRCH270J50
C	605		CCSRCH270J50
C	606		CKSRYB105K10
C	607		CKSRYB103K50
C	608		CKSRYB103K50
C	609		CCSRCH101J50
C	610		CKSRYB103K50
C	611		CKSRYB103K50
C	613		CCSRCH101J50
C	651		CEJQ101M10
C	652		CKSRYB473K25
C	653		CKSRYB473K25
C	654		CCSRCH471J50
C	655		CCSRCH471J50
C	656		CCSRCH471J50
C	657		CCSRCH471J50
C	659		CCSRCH221J50
C	660		CCSRCH221J50
C	663		CKSRYB103K50
C	664		CKSRYB473K25
C	665		CCSRCH100D50

=====Circuit Symbol and No.			===Part Name	Part No.
C	666			CCSRCH100D50
C	667			CKSRYB103K50
C	668			CKSYB106K6R3
C	669			CKSYB106K6R3
C	670			CCSRCH220J50
C	701			CKSRYB223K50
C	702			CCSRCH151J50
C	703			CKSRYB104K25
C	704			CKSRYB104K25
C	705			CKSRYB104K25
C	706			CCSRCH101J50
C	707			CKSYB225K16
C	708			CCSRCH471J50
C	709			CEHAZL330M16
C	710			CEHAZL330M16
C	711			CEHAZL330M16
C	712			CEHAZL680M16
C	713			CKSYB475K10
C	714			CKSQYB225K10
C	802			CKSRYB104K16
C	803			CEJQ470M10
C	804			CKSRYB103K50
C	806			CKSRYB103K50
C	807			CKSRYB102K50
C	814			CEJQ470M10
C	815			CKSRYB104K16
C	816			CKSQYB225K10
C	820			CKSQYB225K10
C	821			CEAT101M16
C	822			CCSRCH101J50
C	823			CKSRYB105K10
C	824			CKSQYB225K10
C	825			CKSRYB104K16
C	851			CKSRYB103K50
C	852			CKSRYB104K16
C	853			CEJQ220M10
C	855			CKSRYB102K50
C	856			CCSRCH101J50
C	857			CCSRCH101J50
C	858			CCSRCH101J50
C	901	4700µF/16V		CCH1416
C	902			CKSRYB104K16
C	911	1500µF/16V		CCH1312
C	912			CKSRYB472K50
C	913			CKSRYB103K50
C	914			CEJQ470M10
C	921	330µF/10V		CCH1181
C	922			CKSRYB103K50
C	923			CEJQ101M16
C	931			CKSQYB105K16
C	932			CKSRYB104K16
C	941			CKSYB225K16
C	943			CKSRYB104K16
C	961			CKSRYB102K50
C	962			CKSRYB103K50
C	963			CKSYB225K16
C	971			CEJQ101M16
C	972			CKSRYB472K50
C	973			CKSRYB103K50
C	974	47µF/25V		CCH1394
C	975			CEJQ100M16
C	976			CKSRYB472K50
C	977			CKSRYB103K50
C	978			CEJQ470M10
C	979			CEJQ100M16
C	980			CEJQ100M16
C	981			CEJQ220M16
C	991			CKSRYB473K25
C	992			CKSRYB102K50
C	993	100µF/16V		CCH1395

=====Circuit Symbol and No.			===Part Name	Part No.
C	994			CEV100M10

C Unit Number : CWM7517
Unit Name : Audio Unit

MISCELLANEOUS

IC	1201	IC	PCM1704U-J
IC	1202	IC	PCM1704U-J
IC	1203	IC	SM5847AF
IC	1204	IC	OPA2134UA
IC	1205	IC	LC75386YWHS
IC	1206	IC	OPA2134UA
IC	1207	IC	OPA2134UA
IC	1208	IC	NJM5532MD
IC	1210	IC	TC7SET04FU
Q	1202	Transistor	IMX9
Q	1203	Transistor	IMX9
Q	1204	Transistor	IMX9
L	1201	Inductor	LCTA1R0J4532
L	1202	Inductor	LCTA1R0J4532
L	1203	Inductor	LCTA1R0J4532
L	1204	Inductor	LCTA1R0J4532
L	1205	Inductor	LCTA1R0J4532
L	1206	Inductor	LCTB1R0K1608
L	1208	Inductor	CTF1305
L	1209	Inductor	CTF1305
L	1210	Inductor	CTF1305
L	1211	Inductor	CTF1305
L	1212	Inductor	CTF1305
L	1213	Inductor	CTF1305
L	1214	Inductor	CTF1305
L	1215	Inductor	CTF1305
EF	1201	EMI Filter	CCG1083
EF	1202	EMI Filter	CCG1083
EF	1203	EMI Filter	CCG1083
EF	1204	EMI Filter	CCG1083
EF	1205	EMI Filter	CCG1083

RESISTORS

R	1201		RS1/16S0R0J
R	1202		RS1/16S102J
R	1203		RS1/16S221J
R	1209		RN1/10SE1801D
R	1210		RN1/10SE1801D
R	1211		RN1/10SE2200D
R	1212		RN1/10SE2200D
R	1213		RN1/10SE1000D
R	1214		RN1/10SE1000D
R	1215		RN1/10SE1000D
R	1216		RN1/10SE1000D
R	1217		RAB4C102J
R	1218		RS1/16S104J
R	1219		RS1/16S105J
R	1226		RN1/10SE1002D
R	1227		RN1/10SE1002D
R	1228		RN1/10SE1002D
R	1229		RN1/10SE1002D
R	1230		RN1/10SE1002D
R	1231		RN1/10SE1002D
R	1238		RN1/10SE8200D
R	1239		RN1/10SE8200D
R	1240		RN1/10SE8200D
R	1241		RN1/10SE8200D
R	1242		RN1/10SE8200D
R	1243		RN1/10SE8200D
R	1244		RN1/10SE1501D
R	1245		RN1/10SE1501D
R	1246		RN1/10SE1501D
R	1247		RN1/10SE1501D

=====Circuit Symbol and No.	Part Name	Part No.
R 1248		RN1/10SE1501D
R 1249		RN1/10SE1501D
R 1250		RN1/10SC82R0D
R 1251		RN1/10SC82R0D
R 1252		RN1/10SC82R0D
R 1253		RN1/10SC82R0D
R 1254		RN1/10SC82R0D
R 1255		RN1/10SC82R0D
R 1256		RS1/16S223J
R 1257		RS1/16S223J
R 1258		RS1/16S223J
R 1259		RS1/16S223J
R 1260		RS1/16S223J
R 1261		RS1/16S223J
R 1262		RS1/16S222J
R 1263		RS1/16S222J
R 1264		RS1/16S222J
R 1265		RS1/16S222J
R 1266		RS1/16S222J
R 1267		RS1/16S222J
R 1268		RS1/16S103J
R 1270		RS1/16S220J
R 1271		RS1/16S220J
R 1272		RS1/16S220J
R 1282		RS1/16S101J
R 1283		RS1/16S101J
R 1284		RS1/16S101J
R 1285		RS1/16S101J
R 1286		RS1/16S101J
R 1287		RS1/16S101J
R 1301		RS1/16S102J
R 1302		RS1/16S103J

CAPACITORS

C 1201		CSZST330M16
C 1202		CKSRYB104K16
C 1203		CKSRYB104K16
C 1204		CCSRCH331J50
C 1205		CKSRYB104K16
C 1206		CKSRYB104K16
C 1207		CKSRYB104K16
C 1208		CKSRYB104K16
C 1209		CKSRYB104K16
C 1210		CEAL330M10
C 1211		CEAL330M10
C 1212		CEAL330M10
C 1213		CEAL330M10
C 1214		CEWAS470M16
C 1215		CKSRYB104K16
C 1216		CEAL220M10
C 1217		CEAL101M10
C 1218		CEAL470M10
C 1219		CEWAS470M16
C 1220		CKSRYB104K16
C 1222		CKSRYB104K16
C 1223		CEWAS470M16
C 1224		CEAL220M10
C 1225		CEAL101M10
C 1226		CEAL470M10
C 1227		CEWAS470M16
C 1228		CKSRYB104K16
C 1230		CKSRYB104K16
C 1231		CKSRYB104K16
C 1232		CFHSQ681J50
C 1233		CFHSQ681J50
C 1234		CFHSQ562J16
C 1235		CFHSQ562J16
C 1236		CEAL1R0M50
C 1237		CEAL1R0M50

=====Circuit Symbol and No.	Part Name	Part No.
C 1238		CEAL1R0M50
C 1239		CEAL1R0M50
C 1240		CEAL100M25
C 1241		CEAL100M25
C 1242		CEAL100M25
C 1243		CEAL100M25
C 1244		CKSQYB105K16
C 1245		CKSQYB105K16
C 1246		CKSRYB333K16
C 1247		CKSRYB333K16
C 1248		CKSRYB103K50
C 1249		CKSRYB103K50
C 1250		CCSRCH331J50
C 1251		CCSRCH331J50
C 1252		CEAL100M25
C 1253		CEAL100M25
C 1254		CEAL4R7M50
C 1255		CEAL4R7M50
C 1256		CEAL220M10
C 1257		CKSRYB104K16
C 1258		CEWAR101M10
C 1259		CEAL4R7M50
C 1260		CEAL4R7M50
C 1261		CEAL4R7M50
C 1262		CEAL4R7M50
C 1263		CKSRYB333K16
C 1265		CFHSQ681J50
C 1266		CFHSQ681J50
C 1267		CFHSQ681J50
C 1268		CFHSQ681J50
C 1269		CFHSQ681J50
C 1270		CEAL100M25
C 1271		CEAL100M25
C 1272		CEAL100M25
C 1273		CEAL100M25
C 1274		CEAL100M25
C 1275		CEAL100M25
C 1276		CKSRYB104K25
C 1277		CKSRYB104K25
C 1278		CKSRYB104K16
C 1279		CKSRYB104K16
C 1280		CKSRYB104K16
C 1281		CKSRYB104K16
C 1284		CEAL470M10
C 1285		CEAL470M10
C 1286		CFHSQ681J50
C 1301		CKSRYB102K50
C 1302		CCSRCH221J50
C 1303		CCSRCH221J50
C 1304		CCSRCH221J50
C 1305		CCSRCH221J50
C 1306		CCSRCH221J50
C 1307		CCSRCH221J50
C 1308		CKSRYB104K16
C 1311		CCSRCH221J50

B Unit Number : CWM7534
Unit Name : Keyboard Unit

MISCELLANEOUS

IC 1801	IC	PD6356A
IC 1802	IC	S-80834ANUP-EDY
IC 1821	IC	PD8083A
IC 1841	IC	TC7MH573FK
IC 1842	IC	TC7MH573FK

=====Circuit Symbol and No.		===Part Name	Part No.
IC	1881	IC	SBX8035-H
Q	1881	Transistor	DTC143EU
D	1801	Diode	1SS355
D	1881	LED	NSCW100-0231
D	1882	LED	NSCW100-0231
D	1885	LED	NSCW100-0231
D	1886	LED	NSCW100-0231
D	1887	LED	CL170SRCD
D	1888	LED	NSCW100-0231
D	1889	LED	NSCW100-0231
D	1890	LED	NSCW100-0231
D	1891	LED	NSCW100-0231
D	1892	Diode	DAP202U
D	1893	Diode	DAN202U
L	1801	Chip-Inductor	LCTA2R2J3225
L	1802	Chip-Inductor	LCTA2R2J3225
L	1803	Chip-Inductor	LCTA2R2J3225
L	1821	Inductor-Array	CTF1421
L	1822	Inductor-Array	CTF1421
L	1823	Inductor-Array	CTF1421
L	1824	Inductor-Array	CTF1421
L	1825	Chip-Inductor	LCTA2R2J3225
L	1841	Inductor	LCTB1R0K2125
L	1861	Inductor	CTF1484
L	1862	Chip-Inductor	LCTA2R2J3225
L	1863	Inductor	CTF1295
L	1864	Inductor	CTF1305
L	1881	Inductor	CTF1305
L	1882	Inductor	CTF1305
L	1883	Inductor	CTF1305
X	1801	Radiator 3.77MHz	CSS1427
S	1881	Push Switch	CSG1111
S	1882	Push Switch	CSG1111
S	1883	Push Switch	CSG1111
S	1884	Push Switch	CSG1111
S	1885	Push Switch	CSG1111
S	1886	Push Switch	CSG1111
S	1887	Push Switch	CSG1111
S	1888	Push Switch	CSG1111
S	1889	Push Switch	CSG1111
S	1890	Encoder	CSD1042

RESISTORS

R	1801		RS1/16S222J
R	1802		RS1/16S822J
R	1803		RS1/16S102J
R	1804		RAB4C221J
R	1807		RS1/16S102J
R	1808		RS1/16S102J
R	1809		RS1/16S472J
R	1810		RS1/16S472J
R	1811		RS1/16S473J
R	1812		RS1/16S473J
R	1813		RS1/16S101J
R	1814		RS1/16S0R0J
R	1815		RAB4CQ221J
R	1816		RAB4CQ221J
R	1817		RAB4CQ221J
R	1818		RAB4CQ221J
R	1819		RAB4CQ221J
R	1820		RS1/16S221J
R	1821		RS1/16S473J
R	1841		RAB4C101J
R	1842		RAB4C101J
R	1843		RAB4C102J
R	1844		RAB4C102J
R	1845		RAB4C102J
R	1846		RAB4C102J

=====Circuit Symbol and No.		===Part Name	Part No.
R	1847		RAB4C101J
R	1848		RAB4C101J
R	1861		RS1/16S101J
R	1862		RS1/16S473J
R	1881		RS1/16S331J
R	1882		RS1/16S331J
R	1883		RS1/16S331J
R	1884		RS1/16S221J
R	1885		RS1/16S471J
R	1886		RS1/16S152J
R	1887		RS1/16S152J
R	1888		RS1/16S472J
R	1889		RS1/16S472J
R	1890		RS1/16S153J
R	1891		RS1/16S153J
R	1893		RS1/8S222J
R	1894		RS1/8S222J
R	1895		RS1/16S101J
R	1896		RS1/16S103J

CAPACITORS

C	1801		CKSYB106K6R3
C	1802		CKSYB106K6R3
C	1804		CCSRCH101J50
C	1807		CKSRYB104K16
C	1808		CKSRYB104K16
C	1809		CKSRYB105K10
C	1810		CCSRCH101J50
C	1811		CCSRCH101J50
C	1812		CCSRCH101J50
C	1813		CKSRYB103K50
C	1821		CKSRYB103K50
C	1822		CKSQYB225K10
C	1823		CKSYB106K6R3
C	1842		CCSRCH101J50
C	1843		CKSQYB225K10
C	1844		CKSYB106K6R3
C	1861		CKSQYB225K10
C	1862		CKSYB105K16
C	1863		CKSYB105K16
C	1881		CKSRYB104K16
C	1882		CKSRYB104K16
C	1883		CKSRYB104K16
C	1884		CKSRYB104K16
C	1885		CKSRYB104K16
C	1886		CKSRYB104K16
C	1890		CKSRYB104K16
C	1891		CKSRYB104K16
C	1892		CSZSR220M10
C	1893		CCSRCH101J50
C	1894		CCSRCH101J50

F Unit Number :
Unit Name : Switch PCB

S	951	Switch(CLOSE)	CSN1012
S	952	Switch(OPEN)	CSN1022

E Unit Number : CWX2531
Unit Name : CD Core Unit

MISCELLANEOUS

=====Circuit Symbol and No.		===Part Name	Part No.
IC	201	IC	TA2153FN
IC	301	IC	TC9495F2
IC	401	IC	BA5811FM
IC	601	IC	PE5238A
IC	801	IC	BA05SFP
Q	101	Transistor	2SD1664
Q	102	Transistor	UMD2N
Q	601	Transistor	DTA114EU
TH	601	Thermistor	CCX1037
X	601	Ceramic Resonator 32.00MHz	CSS1544
S	901	Spring Switch(LOAD, EJ)	CSN1052
S	902	Spring Switch(LOAD, EJ)	CSN1052
S	903	Spring Switch(LOAD, EJ)	CSN1052
S	904	Spring Switch(HOME)	CSN1051

RESISTORS

=====Circuit Symbol and No.		===Part Name	Part No.
R	101		RS1/16S222J
R	102		RS1/16S220J
R	103		RS1/16S220J
R	104		RS1/16S220J
R	105		RS1/16S220J
R	201		RS1/16S153J
R	202		RS1/16S153J
R	203		RS1/16S823J
R	204		RS1/16S823J
R	205		RS1/16S102J
R	206		RS1/16S823J
R	207		RS1/16S102J
R	208		RS1/16S124J
R	209		RS1/16S183J
R	210		RS1/16S153J
R	211		RS1/16S103J
R	212		RS1/16S103J
R	213		RS1/16S124J
R	215		RS1/16S471J
R	216		RS1/16S473J
R	217		RS1/16S473J
R	301		RS1/16S153J
R	302		RS1/16S332J
R	303		RS1/16S332J
R	304		RS1/16S105J
R	305		RS1/16S472J
R	311		RS1/16S221J
R	312		RS1/16S103J
R	313		RS1/16S473J
R	314		RS1/16S224J
R	315		RS1/16S334J
R	316		RS1/16S473J
R	321		RS1/16S0R0J
R	401		RS1/16S103J
R	403		RS1/16S154J
R	404		RS1/16S362J
R	405		RS1/16S183J
R	406		RS1/16S183J
R	407		RS1/16S752J
R	408		RS1/16S102J
R	409		RS1/16S103J
R	410		RS1/16S752J
R	411		RS1/16S153J
R	412		RS1/16S154J
R	413		RS1/16S333J
R	602		RS1/16S1502D
R	603		RS1/16S222J
R	604		RS1/16S104J
R	605		RS1/16S223J
R	606		RS1/16S473J
R	607		RS1/16S103J
R	608		RS1/16S102J
R	609		RS1/16S102J
R	610		RAB4CQ102J
R	611		RS1/16S473J
R	701		RAB4CQ221J
R	702		RS1/16S221J
R	703		RS1/16S102J
R	704		RS1/16S0R0J
R	707		RS1/16S221J
R	708		RS1/16S0R0J
R	711		RS1/16S0R0J
R	713		RS1/16S0R0J
R	901		RS1/16S104J
R	902		RS1/16S473J
R	903		RS1/16S273J

CAPACITORS

=====Circuit Symbol and No.		===Part Name	Part No.
C	101		CEVL470M6R3
C	102		CKSRYB102K50
C	103		CKSRYB104K16
C	104		CKSRYB334K10
C	105		CEVL470M6R3
C	106		CKSRYB104K16
C	201		CKSRYB104K16
C	202		CCSRCH560J50
C	204		CKSRYB334K10
C	205		CKSRYB334K10
C	206		CKSRYB273K25
C	207		CKSRYB273K25
C	208		CKSRYB104K16
C	209		CKSRYB104K16
C	210		CCSRCK2R0C50
C	211		CCSRCH220J50
C	212		CCSRCH220J50
C	301		CKSRYB153K25
C	302		CKSRYB104K16
C	303		CKSRYB103K50
C	304		CKSRYB822K50
C	305		CKSRYB223K25
C	306		CKSRYB104K16
C	307		CKSRYB103K50
C	308		CKSRYB104K16
C	309		CKSRYB473K16
C	310		CKSRYB473K16
C	311		CKSRYB104K16
C	312		CKSRYB104K16
C	313		CKSRYB104K16
C	314		CCSRCH221J50
C	315		CEVL220M16
C	316		CEVL101M6R3
C	317		CKSRYB104K16
C	318		CKSRYB104K16
C	319		CKSRYB104K16
C	320		CCSRCH330J50
C	325		CCSRCH471J50
C	329		CKSRYB223K25
C	401		CCSRCH271J50

=====Circuit Symbol and No.		===Part Name	Part No.
C	402		CCSRCH471J50
C	403		CKSRYB223K25
C	404		CKSRYB103K50
C	405		CEVL101M10
C	601		CKSRYB103K50
C	602		CKSRYB472K50
C	703	10µF/10V	CCH1349
C	801	10µF/10V	CCH1349
C	802		CEVL101M6R3
C	803		CKSRYB334K10
C	901		CKSRYB103K50
C	902		CKSRYB103K50

Miscellaneous Parts List

M	1	Carriage Motor Assy(-D)	CXB6361
M	2	Load Motor Assy(-D)	CXB6340
M	3	Motor Unit(SPINDLE)	CXB6620
		Pickup Unit(Service)(P8)	CXX1305
M	951	Motor(Automatic Flap)	CXM1085

6. ADJUSTMENT

6.1 CD ADJUSTMENT

1) Precautions

- This unit uses a single power supply (+5V) for the regulator. The signal reference potential, therefore, is connected to VREF(approx. 2.1V) instead of GND.
  If VREF and GND are connected to each other by mistake during adjustments, not only will it be impossible to measure the potential correctly, but the servo will malfunction and a severe shock will be applied to the pick-up. To avoid this, take special note of the following.
  Do not connect the negative probe of the measuring equipment to VREF and GND together. It is especially important not to connect the channel 1 negative probe of the oscilloscope to VREF with the channel 2 negative probe connected to GND.
  Since the frame of the measuring instrument is usually at the same potential as the negative probe, change the frame of the measuring instrument to floating status.
  If by accident VREF comes in contact with GND, immediately switch the regulator or power OFF.

- Always make sure the regulator is OFF when connecting and disconnecting the various filters and wiring required for measurements.

- Before proceeding to further adjustments and measurements after switching regulator ON, let the player run for about one minute to allow the circuits to stabilize.

- Since the protective systems in the unit's software are rendered inoperative in test mode, be very careful to avoid mechanical and /or electrical shocks to the system when making adjustment.

- The RFI and RFO signals are easy to oscillate because of a wide band. When observing them, insert a resistor of about 1 kΩ to the series.

- This equipment will not guarantee the load ejection operation when the mechanical unit is turned upside down. In particular, if the ejection operation is incorrectly performed and recovery is disabled, the recovery is enabled by resetting a product or turning ACC off to on.

2) Test Mode

This mode is used for adjusting the CD mechanism module of the device.

- Test mode starting procedure
  Reset while pressing the **DISP** and ► keys together.

- Test mode cancellation
  Switch ACC, back-up OFF.

- After pressing the EJECT key, do not press any other key until the disk is completely ejected.

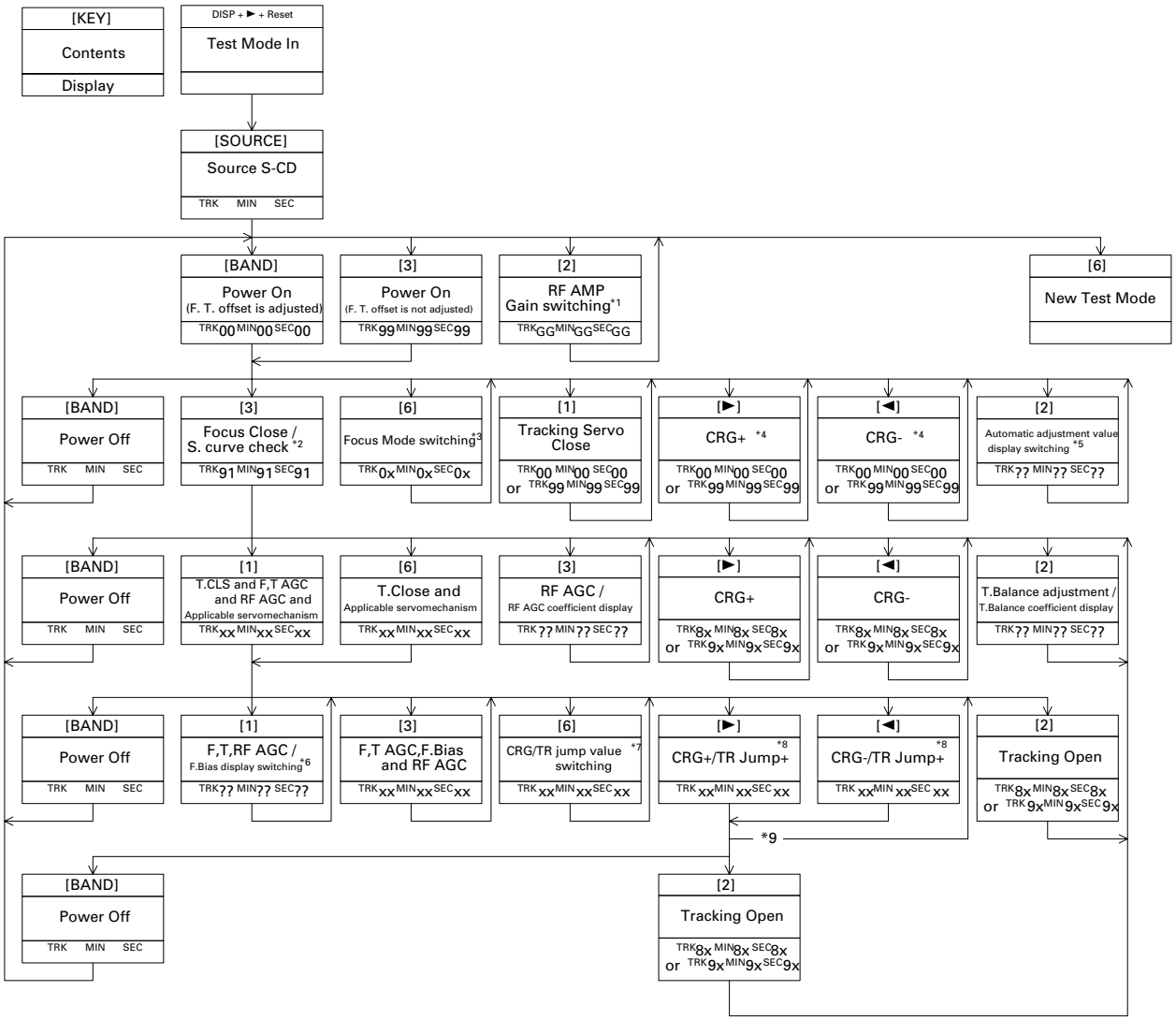
- If the ► or ◄ key is pressed while focus search is in progress, immediately turn the power off (otherwise the actuator may be damaged due to adhesion of the lenses).

- Jump operation of TRs other than 100TR continues after releasing the key. CRG move and 100TR jump operations are brought into the “Tracking close” status when the key is released.

- Powering Off/On resets the jump mode to “1TR”, the RF AMP gain setting to TYP, and the automatic adjustment value to the initial value.

- Please use the "remote control unit of the product accessory" after the test mode starts.

● Flow Chart



*1) TYP (TRK MIN SEC) → +12dB (TRK12 MIN12 SEC12) Switch a value

*2) Focus Close for "00" or "99" display
Perform the S. curve check operation for "01" display

*3) Focus Close setting (TRK00 MIN00 SEC00 or TRK99 MIN99 SEC99) → S. curve check setting (TRK01 MIN01 SEC01) → F. EQ measurement setting (TRK02 MIN02 SEC02) Switch a value

*4) CRG motor voltage = 2 [V]

*5) F.Offset Display → T.Offset Display → Switch to the order of the original display

*6) TRK/MIN/SEC → F.AGC Gain → T.AGC Gain → F.Bias → RF AGC Gain Switch a value

*7) 1TR (TRK91 MIN91 SEC91 or TRK81 MIN81 SEC81) → 32TR (TRK92 MIN92 SEC92 or TRK82 MIN82 SEC82) → 100TR (TRK93 MIN93 SEC93 or TRK83 MIN83 SEC83) → CRG Move (TRK94 MIN94 SEC94 or TRK84 MIN84 SEC84) Switch a value

*8) 1TR/32TR/100TR

*9) Only at the time of CRG move or 100TR jump

[Key]	Operation	
	Test Mode	New Test Mode
[BAND]	Power On/Off	Error occurrence time/ cause display switching
[►]	CRG +/TR Jump+ (Direction of the external surface)	TRK+/FF
[◄]	CRG -/TR Jump- (Direction of the internal surface)	TRK-/REV
[1]	T.CLS and AGC and Applicable servomechanism/ AGC,AGC display switching	SCAN
[2]	RF Gain switching/Offset adjustment display/ T.Balance adjustment/T.OPN	MODE
[3]	F.CLS,S.Curve/Rough Servo and RF	(ITP)
-	Lens down/SPDL 1X/2X switching (Double-speed compatibility only)	-
-	Error rate measurement	-
[6]	F.Mode switching/T.CLS/CRG Jump switching	Auto/Manual switching

6.2 CHECKING THE GRATING AFTER CHANGING THE PICKUP UNIT

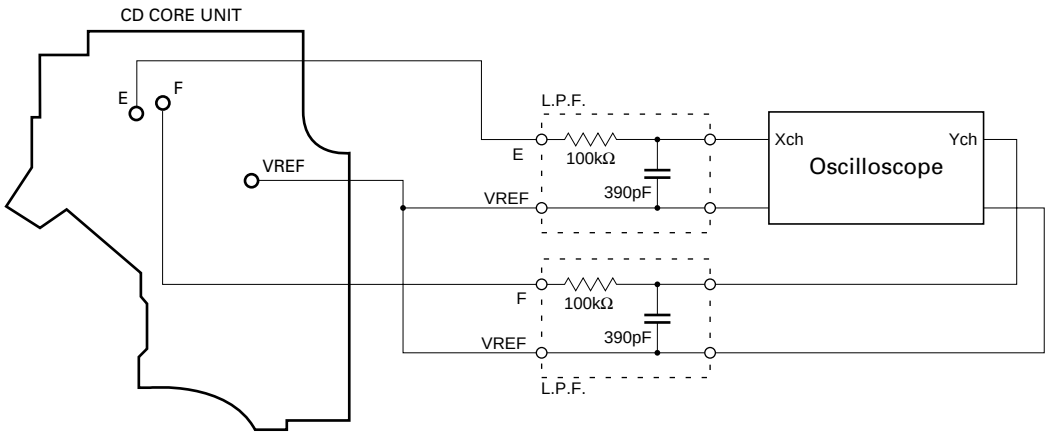
• **Note :**
The grating angle of the PU unit cannot be adjusted after the PU unit is changed. The PU unit in the CD mechanism module is adjusted on the production line to match the CD mechanism module and is thus the best adjusted PU unit for the CD mechanism module. Changing the PU unit is thus best considered as a last resort. However, if the PU unit must be changed, the grating should be checked using the procedure below.

• **Purpose :**
To check that the grating is within an acceptable range when the PU unit is changed.

• **Symptoms of Mal-adjustment :**
If the grating is off by a large amount symptoms such as being unable to close tracking, being unable to perform track search operations, or taking a long time for track searching.

• **Method :**

• Measuring Equipment	• Oscilloscope, Two L.P.F.
• Measuring Points	• E, F, VREF
• Disc	• ABEX TCD-784
• Mode	• TEST MODE



• **Checking Procedure**
1. In test mode, load the disc and switch the 5V regulator on.
2. Using the ► and ◄ buttons, move the PU unit to the innermost track.
3. Press key **3** to close focus, the display should read "91". Press key **2** to implement the tracking balance adjustment the display should now read "81". Press key **3**. The display will change, returning to "81" on the fourth press.
4. As shown in the diagram above, monitor the LPF outputs using the oscilloscope and check that the phase difference is within 75° . Refer to the photographs supplied to determine the phase angle.
5. If the phase difference is determined to be greater than 75° try changing the PU unit to see if there is any improvement. If, after trying this a number of times, the grating angle does not become less than 75° then the mechanism should be judged to be at fault.

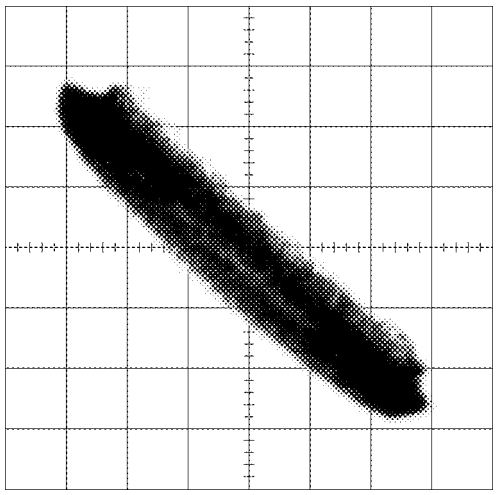
• **Note**
Because of eccentricity in the disc and a slight misalignment of the clamping center the grating waveform may be seen to "wobble" (the phase difference changes as the disc rotates). The angle specified above indicates the average angle.

• **Hint**
Reloading the disc changes the clamp position and may decrease the "wobble".

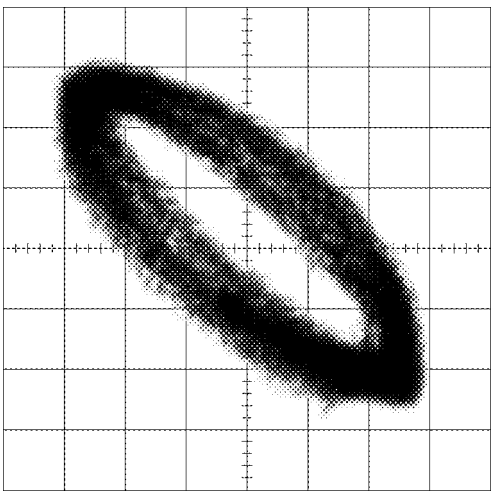
Grating waveform

Ech → Xch 20mV/div, AC
Fch → Ych 20mV/div, AC

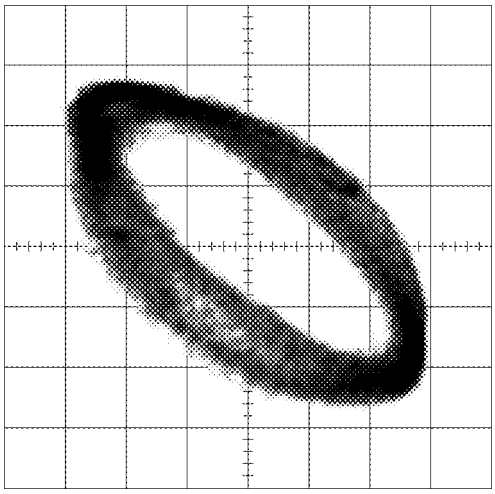
0°



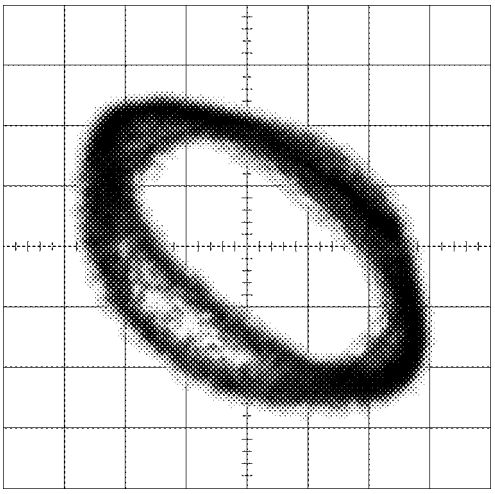
30°



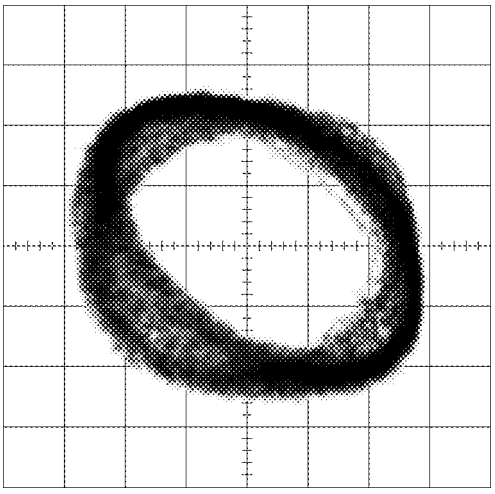
45°



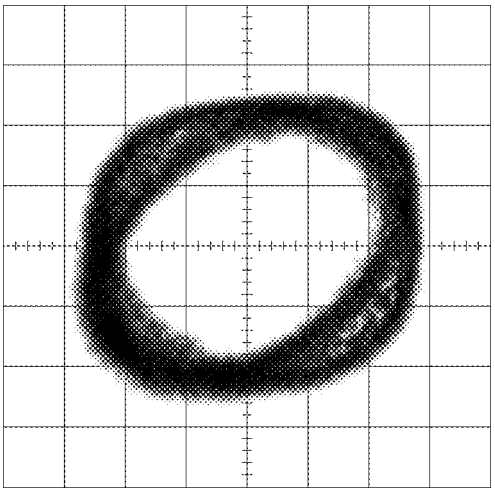
60°



75°



90°



7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 TEST MODE

● CD Section Error No. Display

If the CD player cannot operate or if it stops when an error occurred in operation, it enters the error mode and displays the cause of the error in numerals. Accordingly, an object of this display is to assist in analysis and repair.

(1) Display example

Err XX

(2) Error codes

Error code	Type	Description	Details and cause
10	Mechanical unit	Carriage Home NG	Carriage cannot move to and from the inside circumference. → Defective Home SW, Carriage move error.
11	Electricity	Focus Search NG	Focus is disabled. → At the rear of disc. Disc damage, dirt and vibration are intense.
12	Electricity	Spindle Lock NG	Spindle Lock is not performed and no subcode can be read. → Defective spindle. Disc damage, dirt and vibration are intense.
14	Electricity	Mirror NG	CD-R to which data is not written. (At the rear of disc on rare occasions)
17	Electricity	Setup NG	AGC protection does not work. Focus immediately slips off. → Disc damage, dirt and vibration are intense.
19	Electricity	Setup NG	The tracking balance deviation is 50% or higher or the tracking error level is low. → The pickup or tracking error circuit is abnormal.
30	Electricity	Search Timeout	Could not reach the target address. → Carriage/tracking error, disc damage.
A0	System	Power Supply NG	Higher or lower than the specified voltage, or no power is output. → Defective SW transistor, power supply abnormality, load terminal NG.

* Setup indicates a series of operations until sound is issued after focus has been performed.

● CD Section Test Mode (Aging Operation and Setup Analysis)

Play is performed in the CD normal mode. However, after setup, in the protection operation, such as FOK (focus), LOCK (spindle), subcodes. sound skip and mechanical-unit errors, the error occurrence and a timeout, the occurrence cause and occurrence time are displayed. During setup, the operation status (internal RAM; CPOINT) of the CD software is displayed.

(1) Entering the new test mode

See the test mode flowchart on Page 57.

(2) Correspondence of keys between the test mode and new test mode

Key	Test mode		New test mode	
	Regulator OFF	Regulator ON	In-play	Error or protection occurrence
BAND	Regulator ON	Regulator OFF	—	Error occurrence time or error cause switching
►	—	FWD-KICK	TRACK >	—
◄	—	REV-KICK	< TRACK	—
1	—	TRACKING CLOSE	SCAN	—
2	—	TRACKING OPEN	MODE	—
3	—	FOCUS CLOSE	(ITP)	—
6	To new test mode	FOCUS MODE SWITCHING	AUTO/MANUAL	—

The conventional operation is performed for EJECT or CD ON/OFF.

(3) Error cause (error No.) codes

Error code	Type	Mode	Description	Details and cause
40	Electricity	PLAY	FOK=L 100mS	Focus slips off. → Damage, dirt, vibration and faulty servomechanism.
41	Electricity	PLAY	LOCK=L 100mS	Spindle Lock slips off. → Damage, dirt, vibration and faulty servomechanism.
42	Electricity	PLAY	Subcode NG 500mS	No subcode can be read. → Damage, dirt, vibration and faulty servomechanism.
43	Electricity	PLAY	Sound skip occurrence	Last address memory operation. → Damage, dirt, vibration and faulty servomechanism.

(4) Operation status display during setup

Status No.	Description	Protection operation
00	CD + 5 V ON is being processed.	None
01	SERVO LSI is being initialized (1/3).	None
02	CRAM of servo LSI is being initialized.	None
03	SERVO LSI is being initialized (2/3).	None
04	Offset is being adjusted (1/3).	None
05	Offset is being adjusted (2/3).	None
06	Offset is being adjusted (3/3).	None
07	FZD is being adjusted.	None
08	Servo LSI is being initialized (3/3).	None
10,11	Carriage Home processing start.	None
12	Carriage is moving toward the inside circumference.	Timeout for ten seconds, defective Home SW.
13	Carriage is moving toward the outside circumference.	Timeout for ten seconds, defective Home SW.
14	Carriage outer kicking.	None
15	Carriage is being sent to the outside circumference. (for one second)	None
20	Servo Close processing start.	None
21	Being processed before Focus Search start.	None
22	Spindle rotation, Focus Search start.	None
23	Focus Close (FOON = Low) wait.	Focus Search timeout.
24	Waiting after Focus Close.	None
25	Being processed before Focus Search start, at setup protection.	None
26	Being processed before Focus Search start, at fast recovery.	None
27	RF detection. (RFOK = Hi confirmation)	Focus slips off, no RF is output.
28	Spindle OLV rough servocontrol.	Focus slips off.
29	Setting before T balance adjustment processing start.	Focus slips off.
30	T balance adjustment (1/2).	Focus slips off.
31	T balance adjustment (2/2).	Focus slips off.
32	Spindle CLV stationary servocontrol.	Focus slips off.
33	Tracking Close processing (1/2).	Focus slips off.
34	Tracking Close processing (2/2).	Focus slips off.
35	Setting before Focus/Tracking AGC start.	Focus slips off.
36	Focus AGC start processing.	Focus slips off.
37	Focus AGC processing (1/2).	Focus slips off.
38	Focus AGC processing (2/2).	Focus slips off.
39	Setting before Tracking AGC start.	Focus slips off.

Status No.	Description	Protection operation
40	Tracking AGC start processing.	Focus slips off.
41	Tracking AGC processing.	Focus slips off.
42	Focus/Tracking AGC processing.	Focus slips off, AGC coefficient NG.
43	FE bias adjustment start processing.	Focus slips off.
44	FE bias adjustment.	Focus slips off.
45	RFAGC adjustment start.	Focus slips off.
46	RFRP level read processing.	Focus slips off, low RFRP level.
47	Setting before Lock confirmation.	Focus slips off.
48	Lock is being checked.	Focus slips off, Spindle Lock is not performed.
49	Setting before subcode confirmation.	Focus slips off.
50	Subcode confirmation.	Focus slips off, no subcode can be read.

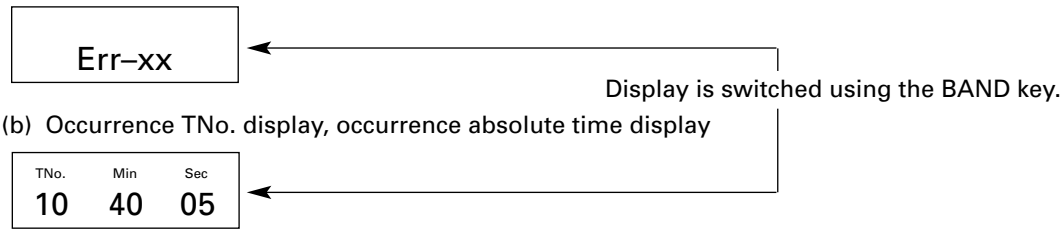
(5) Example of display on display unit

• During setup

• In operation (PLAY and SEARCH), this mode is almost the same as the normal mode.

• At protection/error occurrence

(a) Error display



(b) Occurrence TNo. display, occurrence absolute time display

7.1.2 DISASSEMBLY

● **Removing the Case (not shown)**

1. Remove the Case.

● **Removing the CD Mechanism Module (Fig.1)**

1 Remove the four screws.

Disconnect the connector and then remove the CD Mechanism Module.

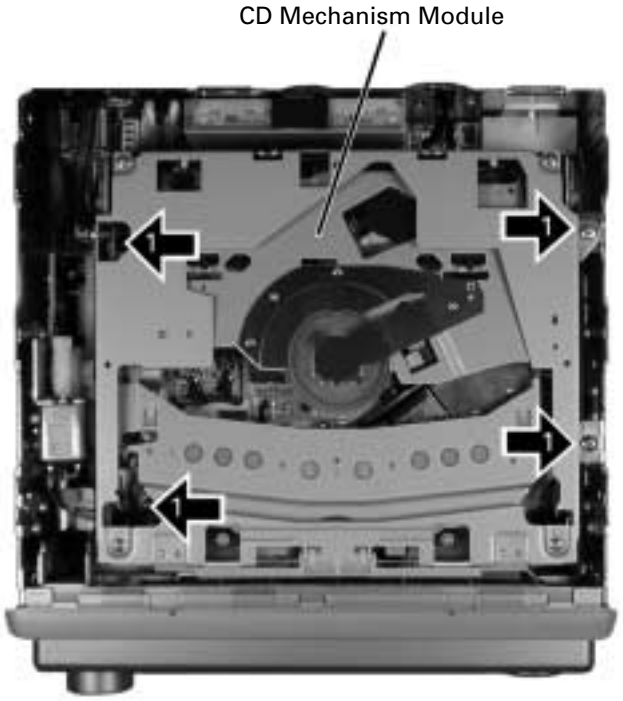


Fig.1

● **Removing the Panel Assy (Fig.2)**

1 Remove the four screws.

Disconnect the connector and then remove the Panel Assy.

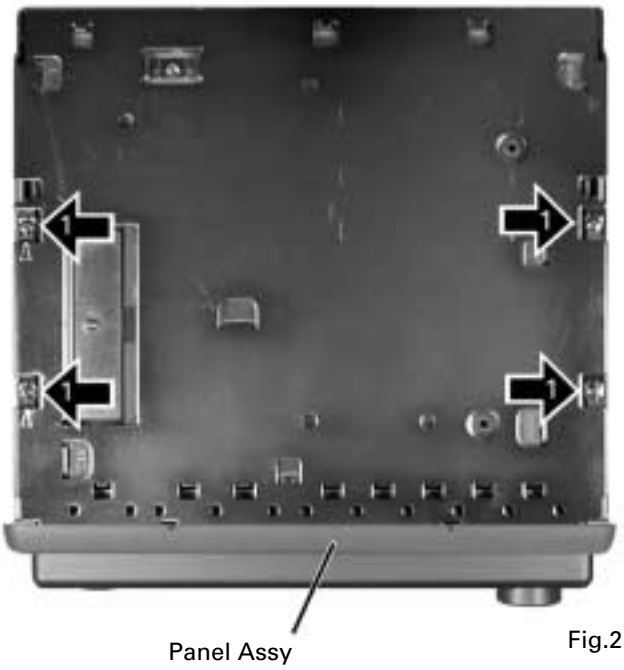


Fig.2

● **Removing the Audio Control Unit (Fig.3)**

1 Remove the four screws.

2 Straight the tabs at five locations indicated.

3 Remove the two screws and then remove the Audio Control Unit.

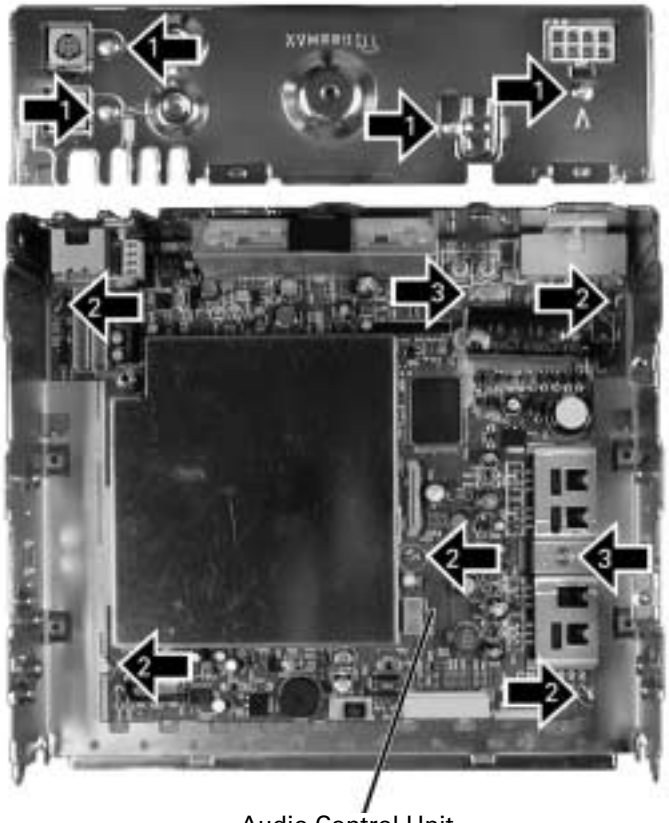


Fig.3

● **Removing the Audio Unit (Fig. 4)**

1. Remove the solder of three tabs indicated by arrows A and then detach the Shield.
2. Remove the solder of five tabs indicated by arrows B, disconnect each of the connectors, and then detach the Audio Unit.

(Note)

Do not bend the tab indicated by C when assembling. Also, do not solder it.

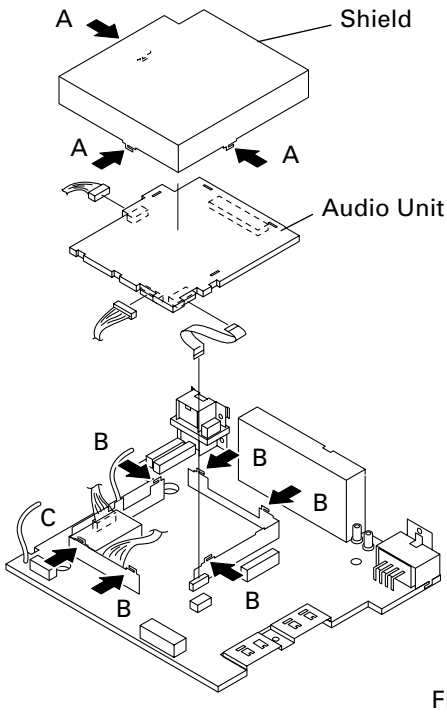
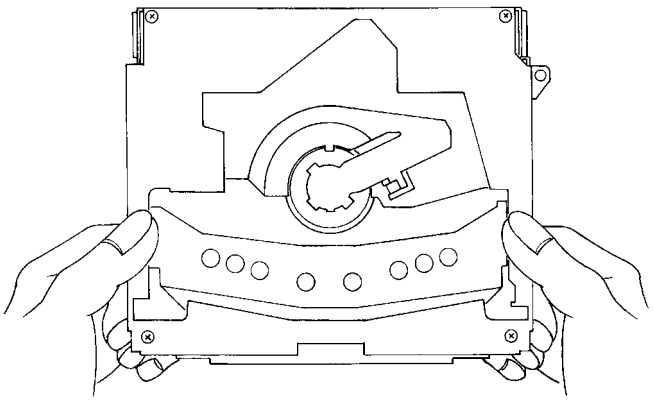


Fig.4

The numeral enclosed by a circle in the drawing indicates the order of removal.

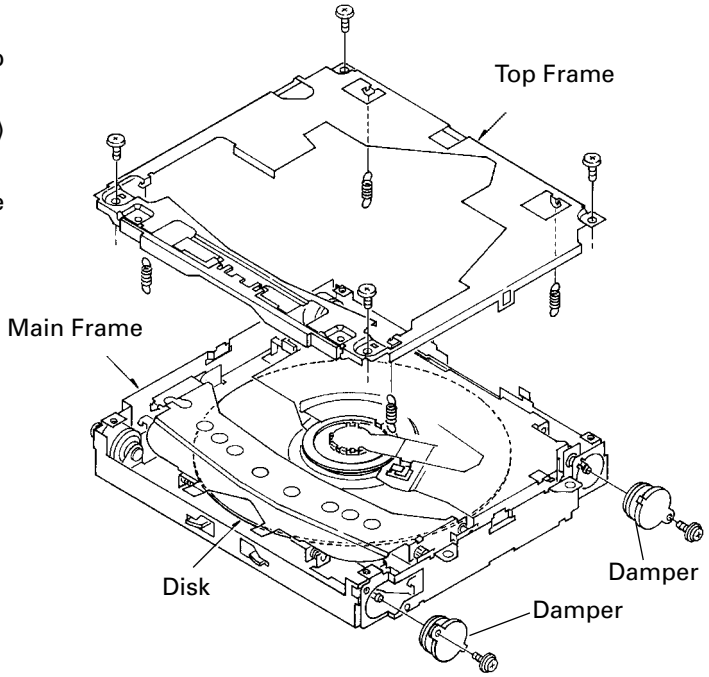


● How to hold the mechanism unit

1. Hold the top frame and main frame.
2. Do not hold the front of the top frame tightly because its strength is low.

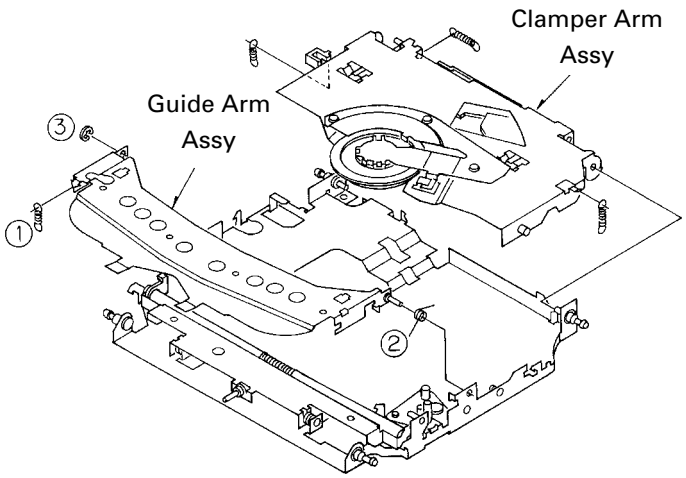
● How to remove the top frame and main frame

1. Remove the screws (4) and screws (2) of the top frame in the clamped state and remove the top frame.
2. After having removed the screws of the dampers (2) on the right and the dampers, remove the main frame.
3. Remount the product connector with the frame removed and eject a disk.



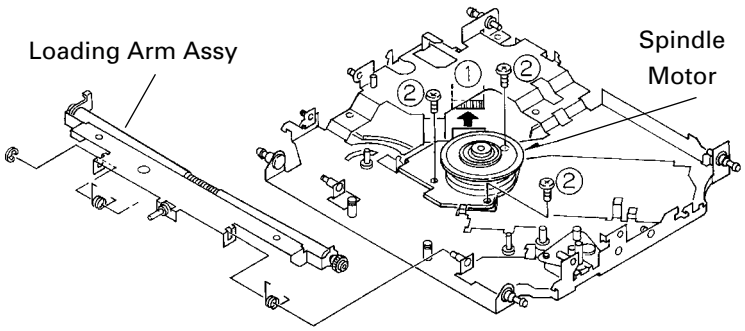
● How to remove the clamper arm assy and guide arm assy

1. Remove a total of three right, left and rear screws and remove the clamper assy.
2. Remove the left spring and remove the torsion spring hook of the right fulcrum unit.
3. Remove the E ring of the left fulcrum and remove the guide arm assy.



● How to remove the loading arm assy and spindle motor

1. Remove the E ring of the left fulcrum and remove the spring and loading arm assy.
2. Remove the connector of the spindle motor and remove the mounting screws (3).



● How to remove the loading motor assy

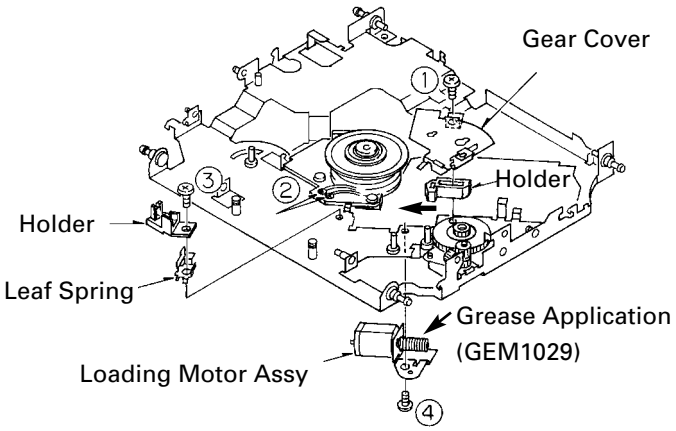
1. Remove the gear cover screw and remove the gear cover.
2. Remove the holder which was tightened together with the gear cover.

(Note):

At assembly, tighten the holder together with the gear cover by approaching the holder to the arrow view direction and touching the tip of the motor shaft.

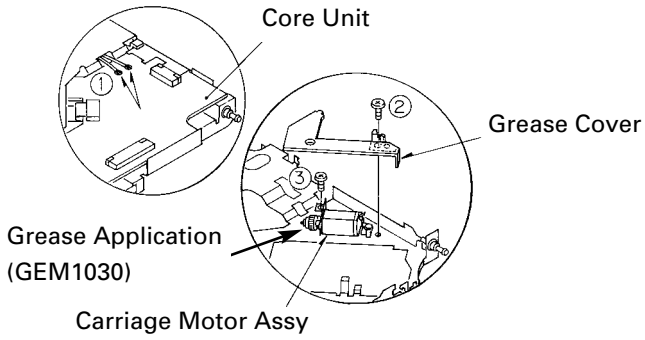
At that time, if the holder is tightened with screws while it is being pressed, the motor load is increased and causes an error (NG). While the holder is approached, separate the hand from the holder and the holder is tightened with the screws.

3. Remove the solder of the motor lead wire.
4. Remove the leaf spring screw and remove the holder and leaf spring.
5. Put the mechanical unit face downward, remove the mounting screws of the loading motor assy and remove the loading motor assy.



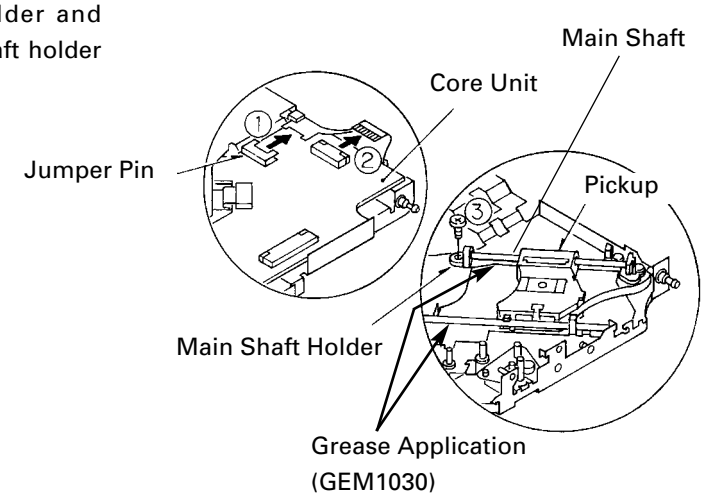
● How to remove the carriage motor assy

1. Remove the solder of the carriage motor lead wire.
2. Remove the grease cover screw and remove the grease cover.
3. After having removed the lead wire processing of the motor, remove the mounting screw of the carriage motor assy.

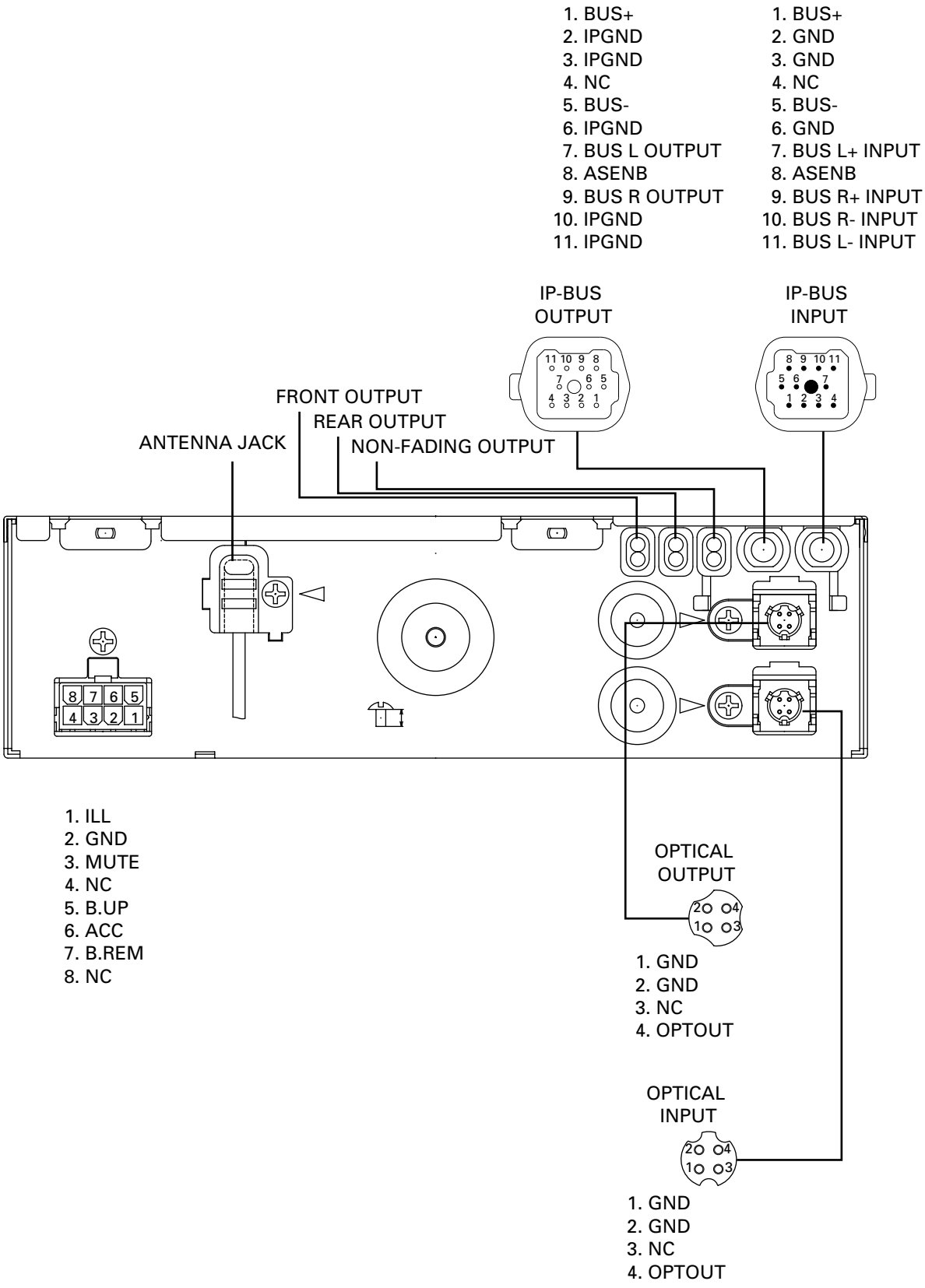


● How to remove the pickup

1. Mount the jumper pin and remove the pickup connector.
2. After having the processing of flexible wires, remove the mounting screw of the main shaft holder and remove the pickup together with the main shaft holder and the main shaft.



7.1.3 CONNECTOR FUNCTION DESCRIPTION



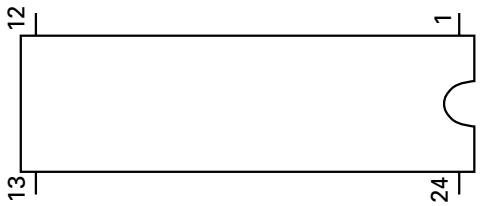
7.2 IC

PCM1800	TC9271FS	OPA2134UA	PD6356A
LC89055WHS-RA8	PE5208A	SM5847AF	TA2153FN
TC74HCT157AF	PE5209A	LC75386YWHS	TC9495F2
TC7SH02FU	AN8015SH	PD8083A	PE5238A
SM5849AF	PCM1704U-J	TC7MH573FK	BA5811FM

● **Pin Functions (PCM1800)**

Pin No.	Pin Name	I/O	Function and Operation
1	VINL	I	Analog input, Lch
2	VREF1		Reference 1 decoupling capacitor
3	REFCOM		Reference decoupling common
4	VREF2		Reference 2 decoupling capacitor
5	VINR	I	Analog input, Rch
6	$\overline{\text{RSTB}}$	I	Reset input
7	BYPAS	I	LCF bypass control
8, 9	FMT0, 1	I	Audio data format 0, 1
10, 11	MODE0, 1	I	Master/slave mode select 0, 1
12	FSYNC	I/O	Frame synchronous input/output
13	LRCK	I/O	Sampling clock input/output
14	BCK	I/O	Bit clock input/output
15	DOUT	O	Audio data output
16	SYSCK	I	System clock input 256fs, 384fs, 512fs
17	DGND		Digital GND
18	VDD		Digital power supply
19	CINNR		Anti-aliasing filter capacitor (-)Rch
20	CINPR		Anti-aliasing filter capacitor (+)Rch
21	CINNL		Anti-aliasing filter capacitor (-)Lch
22	CINPL		Anti-aliasing filter capacitor (+)Lch
23	VCC		Analog power supply
24	AGND		Analog GND

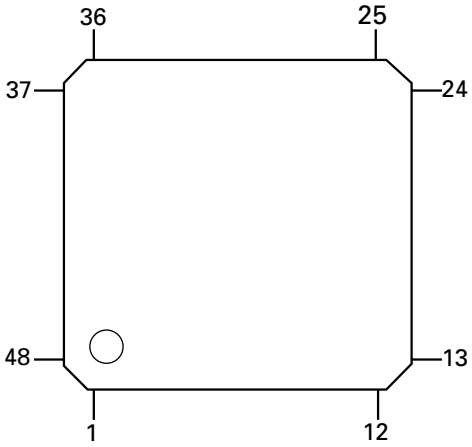
PCM1800



● **Pin Functions (LC89055WHS-RA8)**

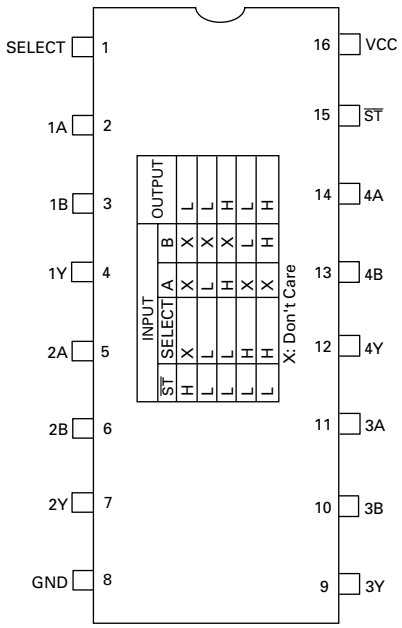
Pin No.	Pin Name	I/O	Function and Operation
1	DISEL	I	Select input pin for data input pin(DIN0,DIN1)
2	DOUT	O	Output pin for serial audio data
3	DIN0	I	Digital data input pin
4	DIN1	I	Digital data input pin
5	DIN2	I	Digital data input pin
6	DGND		GND for digital circuit
7	DVDD		Digital VDD pin(5V)
8	R	I	VCO gain control input pin
9	VIN	I	Input pin for VCO free run frequency setting
10	LPF	O	PLL loop filter setting pin
11	AVDD		Analog power supply
12	AGND		Analog GND
13	CKOUT	O	Clock output pin
14	BCK	O	64fs clock output pin
15	LRCK	O	fs clock output pin
16	DATAO	O	Data output pin
17	XSTATE	O	Output pin for source clock switch monitor
18	DGND		Digital GND
19	DVDD		Digital power supply
20	XMCK	O	Crystal oscillation clock output pin
21	XOUT	O	Crystal oscillator connection output pin
22	XIN	I	Crystal oscillator connection input pin
23	EMPHA	O	Output pin for emphasis information of channel status
24	AUDIO	O	Output pin for bit 1 of channel status (non-PCM data detection bit)
25	CSFLAG	O	Output pin for updating flag of the leading 40 bits of channel status
26	F0/P0/C0	O	Output pin for calculated signal of input fs/Pc data type/input word information
27	F1/P1/C1	O	Output pin for calculated signal of input fs/Pc data type/input word information
28	F2/P2/C2	O	Output pin for calculated signal of input fs/Pc data type/input word information
29	VF/P3/C3	O	Output pin for validity flag/Pc data type/input word information
30	DVDD		Digital power supply
31	DGND		Digital GND
32	AUTO	O	Output pin for non-PCM burst data transmission detection signal(Pa,Pb detection)
33	BPSYNC	O	Output pin for non-PCM burst preample Pa, Pb, Pc, Pd sync signal
34	ERROR	O	Output pin for PLL lock error, data error flag
35	DO	O	Output pin for microcomputer IF read data
36	DI	I	Output pin for microcomputer IF write data
37	CE	I	Microcomputer IF chip enable pin
38	CL	I	Microcomputer IF clock input pin
39	XSEL	I	Select input pin for XIN crystal oscillator frequency
40	MODE0	I	Mode setting input pin
41	MODE1	I	Mode setting input pin
42	DGND		Digital GND
43	DVDD		Digital power supply
44	DOSEL0	I	Output data format select input pin
45	DOSEL1	I	Output data format select input pin
46	CKSEL0	I	Output clock select input pin
47	CKSEL1	I	Output clock select input pin
48	XMODE	I	System reset input pin

* LC89055WHS-RA8

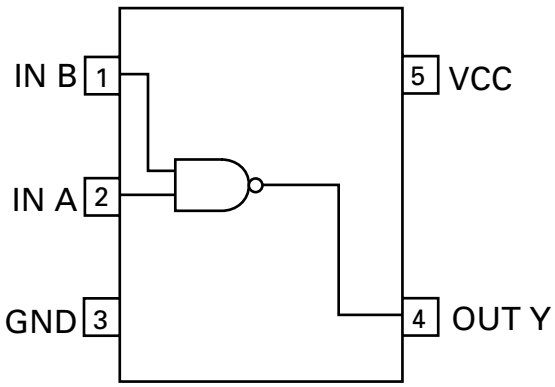


IC's marked by * are MOS type.
Be careful in handling them because they are very liable to be damaged by electrostatic induction.

* TC74HCT157AF



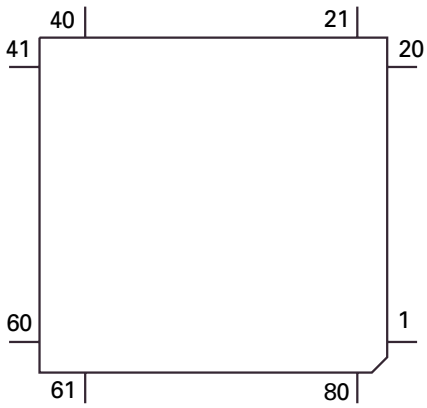
* TC7SH02FU



● **Pin Functions (SM5849AF)**

Pin No.	Pin Name	I/O	Function and Operation
1	VDD		Power supply pin
2	DI	I	Digital input pin
3	BCKI	I	Bit clock input pin
4	LRCI	I	Word clock input pin
5	VSS		GND pin
6	ICLK	I	System clock input pin
7	ICKSL	I	System clock select pin
8, 9	IFM1, 2	I	Input format select pin 1, 2
10, 11	IWL1, 2	I	Input word length select pin 1, 2
12-19	NC		Not used
20	VSS		GND pin
21	VDD		Power supply pin
22	DMUTE	I	Direct mute pin
23	MCOM	I	Microcomputer control select pin
24	MDT/FSI1	I	Microcomputer I/F data input/de-emphasis filter fs select pin 1
25	MCK/FSI2	I	Microcomputer I/F clock input pin/de-emphasis filter fs select pin 2
26	MLEN/DEEM	I	Microcomputer I/F latch enable input pin/de-emphasis function select pin
27-39	NC		Not used
40	VSS		GND pin
41	VDD		Power supply pin
42, 43	OWL2, 1	I	Output data bit length select pin 2, 1
44	IISN	I	IIS output select pin
45	STATE	O	State output pin
46	TST2N	I	IC test mode setting pin 2
47	DITHN	I	Output dither control pin
48	RSTN	I	Reset input pin
49	THRUN	I	Through mode setting pin
50	SLAVE	I	Slave mode setting pin
51-59	NC		Not used
60	VSS		GND pin
61	VDD		Power supply pin
62	OCKSL	I	Output system clock select input pin
63	OCLK	I	Output system clock input pin
64	VSS		GND pin
65	LRCO	O	Word clock output pin
66	BCKO	O	Bit clock output pin
67	DOUT	O	Data output pin
68-79	NC		Not used
80	VSS		GND pin

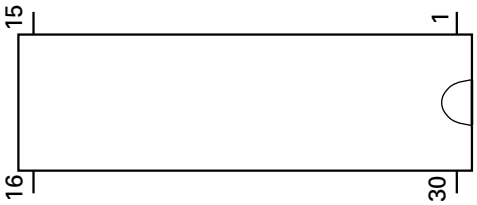
SM5849AF



● **Pin Functions (TC9271FS)**

Pin No.	Pin Name	I/O	Function and Operation
1	BLOCK	O	Block start position output pin
2	UBDA	I	User bit data input pin
3	LRS	I	LRCK polarity select pin
4	LRCK	I	LR clock input pin
5	NC		Not used
6	BCK	I	Bit clock input pin
7	DATA	I	2ch:data input pin /4ch:data input pin 1
8	VLDY	I	2ch:correction flag input pin /4ch:data input pin 2
9	EMPH	I	Emphasis flag setting pin
10	COPY	I	P:copy flag setting pin /S:"H" fixed
11, 12	FS1, 2	I	Sampling frequency setting pin 1, 2
13	CKS	I	Clock subharmonic number select pin
14	XI	I	Clock input pin
15	VSS		GND pin
16, 17	DO1, 2	O	Digital data output pin 1, 2
18, 19	M1, 2	I	Channel mode setting pin 1, 2
20, 21	IS1, 2	I	Data input mode setting pin 1, 2
22	CTG1	I	P:category code setting pin 1/S:data input pin
23	CTG2	I	P:category code setting pin 2/S:clock input pin
24	CTG3	I	P:category code setting pin 3/S:latch pulse input
25	FR32	O	FR32 output pin
26	NC		Not used
27	LBIT	I	P:LBIT input pin/S:32/192 bit switch pin
28	CKA1	I	P:clock precision setting pin 1/S:"H" fixed
29	CKA2	I	P:clock precision setting pin 2/S:do not output
30	VDD		Power supply voltage pin

* TC9271FS

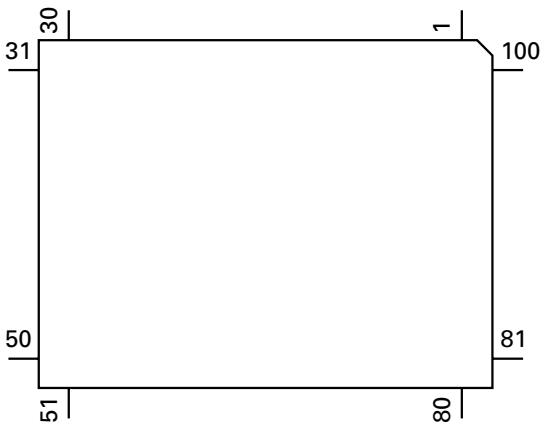


● **Pin Functions (PE5208A, PE5209A)**

Pin No.	Pin Name	I/O	Function and Operation
1	SWVDD	O	GRILL: chip enable output
2	DSENS	I	Grille detach sense input
3	SUBOK	I	Sub code receivability verification
4	TELIN	I	TELL MUTE input
5	TESTIN	I	Test program mode input
6	AUTOANT	O	Antenna power output
7	DGERR	I	DIR error detection
8	DIRCL	O	DIR clock output pin
9	DIRDI	O	DIR write data output pin
10	DIRDO	I	DIR read data input pin
11	RESET	I	Reset input
12	XT2		Time clock connection pin
13	XT1	I	Time clock connection pin
14	VSS		GND pin
15	X2		Main oscillator connection pin
16	X1	I	Main oscillator connection pin
17	REGOFF		Regulator operation signal
18	REGC		Connection for capacity stabilizing regulator output
19	VDD		Power supply pin (VDD)
20	DIRCE	O	DIR chip enable output pin
21	SYSPWR	O	SYSTEM: system power control
22	FLPPWR	O	FLAP: flap power control
23	FLPILM	O	FLAP: illumination in flap control
24	ILMPWR	O	Illumination power control
25	OELPW	O	OEL power supply output
26	AUDIO	I	Non-PCM data detection input
27	IPPW	O	IPBUS: driver power supply control
28	ASENBO	O	IPBUS: slave Acc sense output
29	FM/AM	O	TUNER: decoder power supply control output
30	MUTE	O	SYSTEM: integrated MUTE output
31	ROMDATA	O	ROM correction data output
32	ROMCK	O	ROM correction clock output
33	ROMCS	O	ROM correction chip select output
34	ANTFIX	O	TUNER: diversity output
35	LOCL	O	TUN: local L output
36	LOCH	O	TUN: local H output
37	TUNPCE2	O	TUN:EEPROM chip enable output
38	SD	I	TUN:SD input
39	ST	I	TUN:stereo input
40	VSS		GND pin (GND)
41	VDD		Power supply pin (VDD)
42	FLPCLS	O	FLAP: close output
43	FLPOPN	O	FLAP: open output
44	FOPNSW	I	FLAP: open sense SW input
45	FCLSSW	I	FLAP: close sense SW input
46	DGRST	O	Digital system IC reset output
47	DGMUTE	O	Digital system mute
48	VCK	O	E.VOL: clock output
49	VDT	O	E.VOL: data output
50	VST	O	E.VOL: strobe output
51	ASEL	O	Analog selector switch output
52	DSEL	O	Digital selector switch output
53	DIRSEL	O	DIR input selector switch output
54	DRST	O	RDS: decoder reset output
55	RDSLK	I	RDS:LK input
56	RDT	I	RDS: data input
57	CURRQ	O	RDS:TUNER voltage FIX output
58	NL2DT	I	RDS: noise level 2

Pin No.	Pin Name	I/O	Function and Operation
59	TMUTE	O	RDS:TUNER mute output
60	SDBW	I	RDS:SD input in case of NF
61	RECIVE	O	RDS:reception output
62	PCL		Output for adjusting clock
63,64	ROT0, 1	I	Rotary encoder input 0, 1
65	BSCK	IO	PBUS:clock input pin
66	BSI	IO	PBUS:data input
67	BSO	O	PBUS:data output
68	BRXEN	IO	PBUS:communication enable
69	BRST	O	PBUS:reset output
70	BSRQ	IO	PBUS:communication demand input
71	DALMON	O	Electric current switch in case of standby
72	NC		Not used
73	TEST		Pin for testing IC (GND)
74	SL		TUNER:signal level input
75	NC		Not used
76	$\overline{\text{DITINH}}$	O	Do not output DIT
77	NC		Not used
78	BATT	I	Backup voltage input
79	NL1		RDS:noise level input 1(A/D)
80	MODEL	I	Model information input
81	ADPW	O	A/D converter SW
82	AVDD		A/D converter positive power suppply (VDD)
83	AVREF		A/D converter reference voltage (VDD)
84	AVSS		A/D converter GND pin (GND)
85	RX		IP-BUS:data input
86	TX		IP-BUS:data output
87	NMI	I	Do not use this (GND)
88	LDET	I	PLL lock detection input
89	RCK	I	RDS:RDS clock input
90	RDS57K	I	RDS:57kHz pulse count input
91	ISENS	I	Illumination sense input
92	ASENS	I	Acc sense input
93	BSENS	I	B.up sense input
94	TUNPDI	I	TUN: data input
95	RXD	I	GRILLE: data input
96	TXD	O	GRILLE: data output
97	TUNPCK	O	TUN: clock output
98	TUNPDO	O	TUN: data output
99	TUNPCE	O	TUN: chip enable output
100	PEE	O	PEE sound output

* PE5208A, PE5209A



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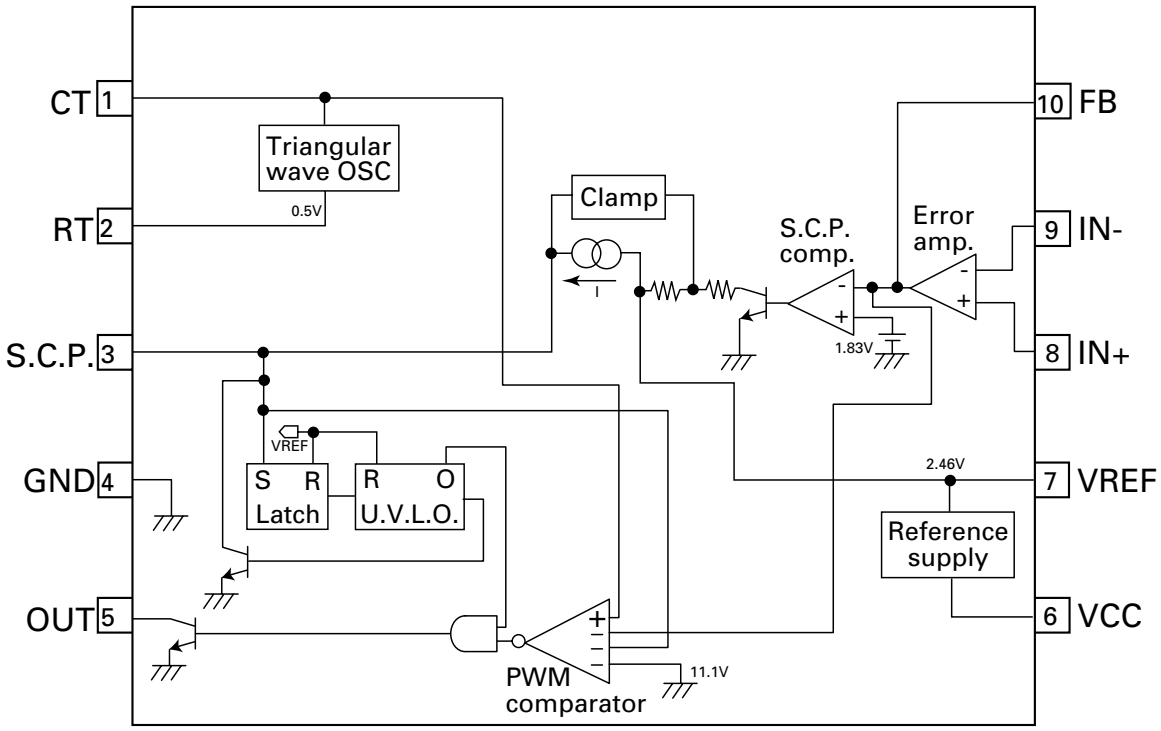
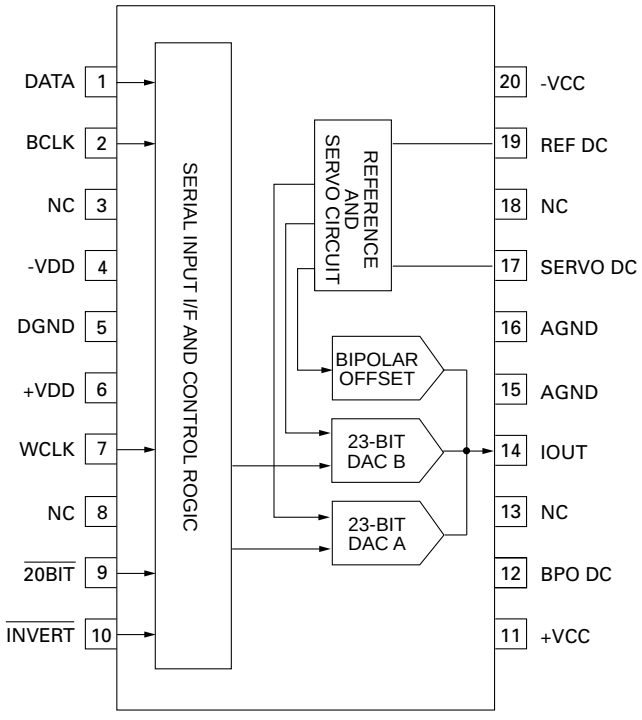
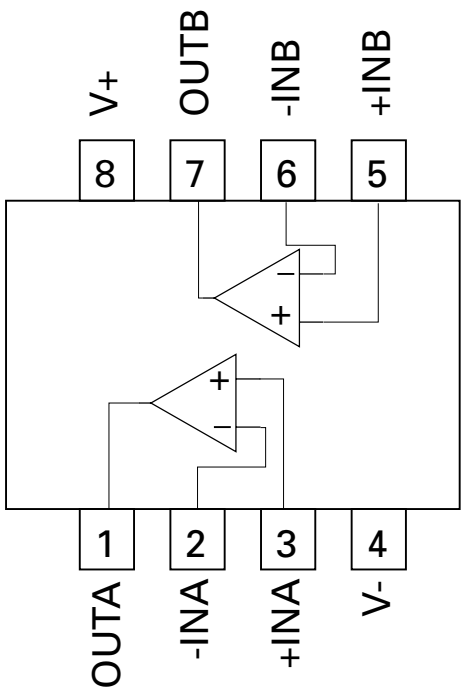


* PCM1704U-J



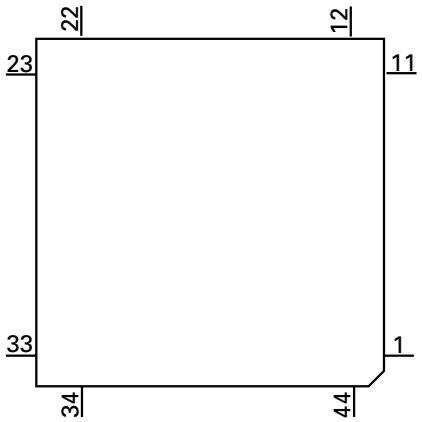
OPA2134UA



● **Pin Functions (SM5847AF)**

Pin No.	Pin Name	I/O	Function and Operation
1	OMD	I	Select pin for output data rate (4fs/8fs)
2	DOR	O	Rch data output pin
3	DOL	O	Lch data output pin
4	WCKO	O	Word clock output pin
5	BCKO	O	Bit clock output pin
6	VSS		GND pin
7	VSSAC		GND pin
8	VDDAC		Power supply (+) pin
9	VDD		Power supply (+) pin
10	DG	O	Deglitch signal output pin
11	NC		Open
12	CKO	O	Master clock output pin
13	VSS		GND pin
14	VDD		Power supply (+) pin
15	XTO	O	Oscillator output pin
16	XTI	I	Oscillator input/master clock input pin
17	VSS		GND pin
18	VDD		Power supply (+) pin
19	LRCI	I	Input pin for sampling rate clock (fs) of input data
20	DI/INF2N	I	Data input/input format select pin 2
21	BCKI	I	Bit clock input pin
22,23	NC		Open
24	CKSLN	I	Master clock frequency (192fs/256fs) select pin
25	INF1N	I	Input format select pin 1
26	IW1N/DIL	I	Word length of input data select pin 1/Lch data input pin
27	IW2N/DIR	I	Word length of input data select pin 2/Rch data input pin
28	VSS		GND pin
29	VDD		Power supply (+) pin
30	OW1N	I	Word length of output data select pin 1
31	OW2N	I	Word length of output data select pin 2
32	SYNCN	I	Synchronous mode select pin
33	RSTN	I	Reset input pin
34,35	CKDV1, 2	I	Internal system clock setting subharmonic ratio select pin 1, 2
36	DEMPR	I	Rch de-emphasis ON/OFF pin
37	DEMPL	I	Lch de-emphasis ON/OFF pin
38	VDD		Power supply (+) pin
39	VSS		GND pin
40,41	FSEL1, 2	I	Select pin 1, 2 for fs of de-emphasis filter
42	MUTEL	I	Lch mute ON/OFF pin
43	MUTER	I	Rch mute ON/OFF pin
44	DITHN	I	ON/OFF pin for dither of output data

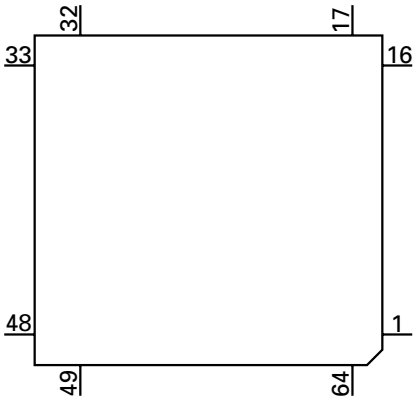
* SM5847AF



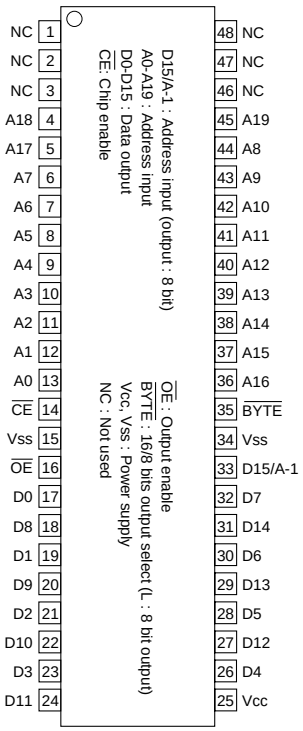
● **Pin Functions (LC75386YWHS)**

Pin No.	Pin Name	I/O	Function and Operation
1	RSEL0	O	Input selector output pin
2	RVRIN	I	2dB step volume input pin
3	RCT		Pin for loudness
4	RCOM	O	2dB step volume output pin
5	RVROUT	O	1dB step volume output pin
6	RTIN	I	Equalizer input pin
7-9	RF1C1-3		Connection pin for capacitor of tone circuit reduction filter
10-12	NC		Not used
13-15	RF3C1-3		Connection pin for capacitor of tone circuit high-frequency filter
16	RTOUT	O	Equalizer output pin
17	RFIN	I	Fader block input pin
18	RFOUT	O	Fader output pin
19	RROUT	O	Fader output pin
20	TIM		Pin for timer when zero cross circuit has no signal
21	RZCLP		Pin for bandwidth limitation of zero cross detection circuit
22	RAVSS		GND pin for analog system
23	$\overline{\text{MUTE}}$		External control mute pin
24	CE		Chip enable pin
25	DI	I	Input pin for serial data and clock for control
26	CL	I	Input pin for serial data and clock for control
27	DVSS		GND pin for logic system
28	LZCLP		Pin for bandwidth limitation of zero cross detection circuit
29	LAVSS		GND pin for analog system
30	LROUT	O	Fader output pin
31	LFOUT	O	Fader output pin
32	LFIN	I	Fader block input pin
33	LTOUT	O	Equalizer output pin
34-36	LF3C3-1		Connection pin for capacitor of tone circuit high-frequency filter
37-39	NC		Not used
40-42	LF1C3-1		Connection pin for capacitor of tone circuit reduction filter
43	LTIN	I	Equalizer input pin
44	LVROUT	O	1dB step volume output pin
45	LCOM	O	2dB step volume output pin
46	LCT		Pin for loudness
47	LVRIN	I	2dB step volume input pin
48	LSEL0	O	Input selector output pin
49	L5P	I	Differential input pin
50	L5M	I	Differential input pin
51-54	L4-1	I	Single end input pin
55	L6	I	Single end input pin
56	VDD		Power supply pin
57	VREF		VDD/2 voltage generator
58	R6	I	Single end input pin
59-62	R1-4	I	Single end input pin
63	R5M	I	Differential input pin
64	R5P	I	Differential input pin

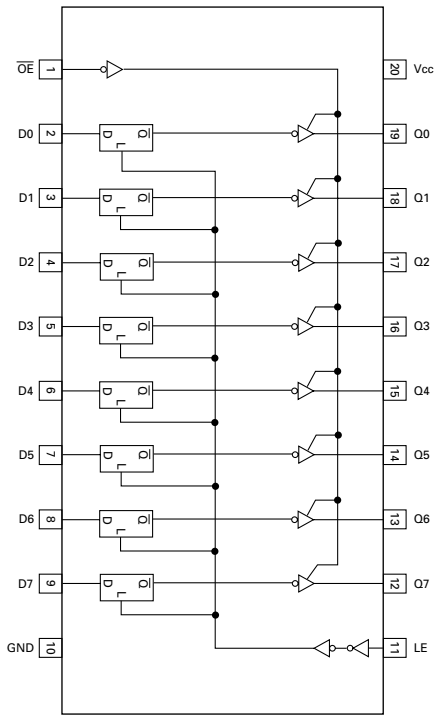
* LC75386YWHS



* PD8083A



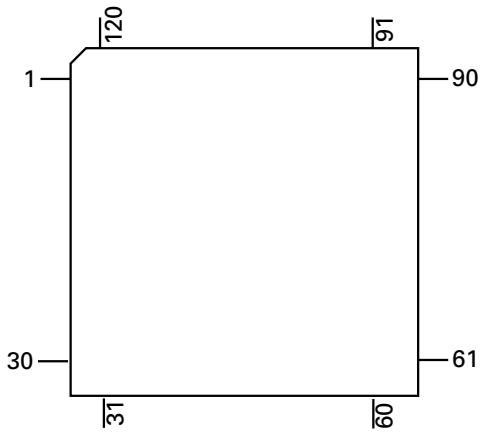
* TC7MH573FK



● **Pin Functions (PD6356A)**

Pin No.	Pin Name	I/O	Function and Operation
1	$\overline{RD}$	O	KROM-RD, CE
2	$\overline{WR}$	O	LCDC-WR, CE
3-5	NC		Not used
6	RDY	I	RDY input
7	NC		Not used
8	VCC		VCC
9	DSPDT	I	Display data
10	KEYDT	O	Key data
11-32	NC		Not used
33	VSS		VSS
34	C		Power suply stabilizer pin
35	$\overline{FLASH}$	I	FLASH ROM WR mode input
36	$\overline{PROG}$	I	PROG LOAD mode input
37-41	NC		Not used
42	AVCC		ADC
43	AVRH		ADC
44	AVRL		ADC
45	AVSS		ADC
46, 47	KDT0, 1	I	Main unit key input
48-53	NC		Not used
54	VCC		VCC
55-62	NC		Not used
63	VSS		VSS
64-71	NC		Not used
72	REMIN	I	Remote control signal
73-84	NC		Not used
85	$\overline{OEL_RES}$		OEL_RES
86	HST	I	Standby pin
87-89	MD2-0	I	Mode pin
90	RST	I	RESET pin
91	VSS		VSS
92, 93	X0, 1		Oscillator circuit
94	VCC		VCC
95-110	AD00-15	I/O	External ADR, DATA BUS
111-118	A16-23	O	External ADR BUS
119	VSS		VSS
120	ALE	O	External A0-A7 latch signal

* PD6356A

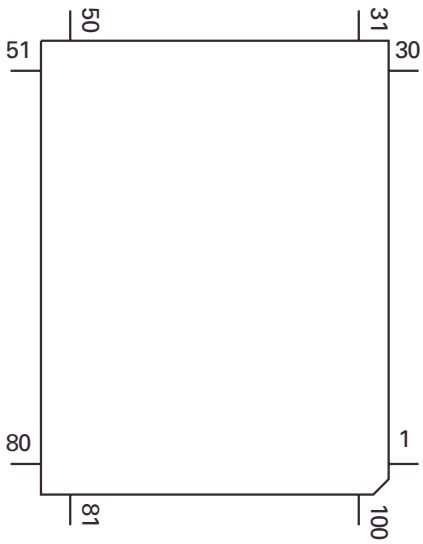


● **Pin Functions (TA2153FN)**

Pin No.	Pin Name	I/O	Function and Operation
1	VCC	-	Power supply voltage terminal
2	RFGC	I	RF amplitude adjustment control signal terminal
3	GMAD	I	AGC amplifier frequency characteristic adjustment terminal
4	FNI	I	Main beam amplifier input terminal
5	FPI	I	Main beam amplifier input terminal
6	TPI	I	Sub beam amplifier input terminal
7	TNI	I	Sub beam amplifier input terminal
8	MDI	O	Monitor photodiode amplifier input terminal
9	LDO	I	Laser diode amplifier output terminal
10	SEL	I	APC circuit ON/OFF signal, LDO terminal control input terminal and bottom and peak detection frequency switching terminals
11	TEB	I	Tracking error balance adjustment signal input terminal
12	2VRO	O	Reference voltage (2VRO) output terminal
13	TEN	I	Tracking error signal generation amplifier reverse phase input terminal
14	TEO	O	Tracking error signal generation amplifier output terminal
15	SBAD	O	Sub beam addition signal output terminal
16	FEO	O	Focus error signal generation amplifier output terminal
17	FEN	I	Focus error signal generation amplifier reverse phase input terminal
18	SEB	I	RFRP generation circuit mode switching terminal
19	VRO	O	Reference voltage (VREF) output terminal
20	RFRP	O	Signal generation amplifier output terminal for track count
21	BTC	I	Bottom detection time constant adjustment terminal for RFCT signal generation
22	RFCT	O	RFRP signal center level output terminal
23	PKC	I	Peak detection time constant adjustment signal for RFCT signal generation
24	RFRPIN	I	Signal generation amplifier input terminal for track count
25	RFGO	O	RF signal amplitude adjustment amplifier output terminal
26	GVSW	I	AGC, FE or TE amplifier gain switching terminal
27	AGCIN	I	RF signal amplitude adjustment amplifier input terminal
28	RFO	O	RF signal generation amplifier output terminal
29	GND	I	GND terminal
30	RFN2	I	RF signal generation amplifier input terminal

TA2153FN

*TC9495F2



● **Pin Functions (TC9495F2)**

Pin No.	Pin Name	I/O	Function and Operation
1	TESTO		Test mode terminal
2	HSO	O	Replay speed flag output terminal
3	UHSO	O	Replay speed flag output terminal
4	EMPH	O	Emphasis flag output terminal for sub code Q data
5	LRCK	O	Channel clock (44.1 kHz) output terminal
6	Vss		Digital ground terminal
7	BCK	O	Bit clock output terminal
8	AOUT	O	Digital audio data output terminal
9	DOUT	O	Digital out output terminal
10	MBOV	O	Buffer memory over signal output terminal
11	IPF	O	Correction flag output terminal
12	SBOK	O	CRCC decision result output for sub code Q data
13	CLCK	I/O	Clock input/output terminal for sub code P-W data read
14	VDD		Digital + power supply terminal (5 V)
15	Vss		Digital ground terminal
16	DATA	O	Sub code P-W data output terminal
17	SFSY	O	Replay-system frame sync signal output terminal
18	SBSY	O	Sub code block sync output terminal
19	SPCK	O	Clock for processor status signal read
20	SPDA	O	Processor status signal output terminal
21	COFS	O	Correction-system frame clock (7.35 kHz) output terminal
22	MONIT	O	LSI internal signal output terminal
23	VDD		Digital + power supply terminal (5 V)
24	TESIO0	I	Test input/output terminal
25	P2VRFF		PLL-system only 2VREF terminal
26	HSSW	O	The VREF voltage is reached for double or quad speed.
27	ZDET	O	One-bit DAC zero detection flag output terminal
28	PDO	O	Phase error signal issue between the EFM and PLCK signals
29	TMAXS	O	TMAX detection result output terminal
30	TAMX	O	TMAX detection result output terminal
31	LPFN	I	Reverse input terminal of amplifier for lowpass filter
32	LPFO	O	Output terminal of amplifier for lowpass filter
33	PVREF		PLL-system only VREF terminal
34	VCOREF	I	VCO center frequency reference level terminal
35	VCOF	O	Filter terminal for VCO
36	Avss		Analog-system ground terminal
37	SLCO	O	Output terminal of DAC for data slice level generation
38	RFI	I	RF signal input terminal
39	AVDD		Analog-system power supply terminal (5 V)
40	RFCT	I	RFRP signal center level input terminal
41	RFZI	I	Input terminal for RFRP signal zero cross
42	RFRP	I	RF ripple signal input terminal
43	FEI	I	Focus error signal input terminal
44	SBAD	I	Sub beam addition signal input terminal
45	TSIN	I	Test input terminal
46	TEI	I	Tracking error input terminal
47	TEZI	I	Input terminal for tracking error or zero cross
48	FOO	O	Focus equalizer output terminal
49	TRO	O	Tracking equalizer output terminal
50	VREF		Analog reference power supply terminal
51	RFGC	O	RF amplitude adjustment control signal output terminal
52	TEBC	O	Tracking balance control signal output terminal
53	FMO	O	Feed equalizer output terminal
54	FVO	O	Speed error signal or feed search EQ output
55	DMO	O	Disc equalizer output terminal
56	2VREF		Analog reference power supply terminal
57	SEL	O	APC circuit ON/OFF signal output terminal

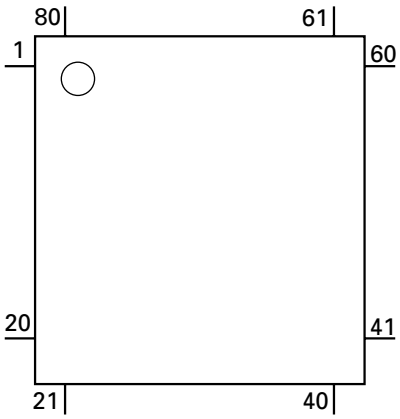
Pin No.	Pin Name	I/O	Function and Operation
58	FLGA	O	External flag output terminal for internal signal monitor
59	FLGB	O	External flag output terminal for internal signal monitor
60	FLGC	O	External flag output terminal for internal signal monitor
61	FLGD	O	External flag output terminal for internal signal monitor
62	VDD		Digital + power supply terminal (5 V)
63	Vss		Digital ground terminal
64	IO0	O	RF amplifier gain switching terminal
65	IO1	O	
66	IO2	I	HOME detection switch input terminal
67	IO3	O	FocusDrv and signal output terminal
68	DMOUT	I	
69	CKSE	I	Usually open
70	DACT	I	DAC test mode terminal
71	TESIN	I	Test input terminal
72	TESIO1	I	Test input/output terminal
73	Vss		Digital ground terminal
74	PXI	I	DPS-system clock oscillator circuit input terminal
75	PXO	O	DPS-system clock oscillator circuit output terminal
76	VDD		Digital + power supply terminal (5 V)
77	Xvss		Ground terminal for system clock oscillator circuit
78	XI	I	System clock oscillator circuit input terminal
79	XO	O	System clock oscillator circuit output terminal
80	XVDD		For system clock oscillator circuit + power supply terminal
81	DVSR		R channel D/A converting unit power supply terminal
82	RO	O	R channel data forward rotation output terminal
83	DVDD		D/A converting unit power supply terminal (5 V)
84	DVR		Reference voltage terminal
85	LO	O	L channel forward rotation output terminal
86	DVSL		L channel D/A converting unit power supply terminal
87	TEST1	I	Test mode terminal
88	TEST2	I	Test mode terminal
89	TEST3	I	Test mode terminal
90	BUS0	I/O	Data input/output terminal for microcomputer interface
91	BUS1	I/O	Data input/output terminal for microcomputer interface
92	BUS2	I/O	Data input/output terminal for microcomputer interface
93	BUS3	I/O	Data input/output terminal for microcomputer interface
94	VDD		Digital + power supply terminal (5 V)
95	Vss		Digital ground terminal
96	BUCK	I	Clock terminal for microcomputer interface
97	CEE	I	Chip enable signal for microcomputer interface
98	TEST4	I	Test mode terminal
99	TSMOD	I	Test mode terminal
100	RST	I	Reset signal input terminal

● **Pin Functions (PE5238A)**

Pin No.	Pin Name	I/O	Format	Function and Operation
1	$\overline{\text{BSCK}}$	I/O	/C	P-Bus serial clock input/output
2	BDATA	I/O	/C	P-Bus serial data input/output
3	CONT	O	C	Servo driver power supply control output
4	CDLOAD	O	C	Load/Eject motor load control output
5	CDEJET	O	C	Load/Eject motor eject control output
6	NC			Not used (Open)
7	$\overline{\text{RESET}}$			Chip reset
8	VDD1			Positive power supply of parts other than ports (make potential the same as that of VDD0)
9	X2			Connection for crystal oscillating system clock
10	X1	I		Connection for crystal oscillating system clock
11	VSS1			GND for parts other than ports (make potential the same as that of VSS0)
12-14	CBANK0-2	O	C	COMP IC bank setting output 0-2
15	$\overline{\text{CRST}}$	O	C	COMP IC reset output
16-18	NC			Not used (Open)
19	SUBOK	O	C	Output for sub code information being OK
20,21	NC			Not used (Open)
22	DSET	O	C	Light output for disc set indicator
23,24	NC			Not used (Open)
25	DSPMUTE	O	C	DOUT Mute output
26-28	NC			Not used (Open)
29	BRXEN	I/O	/C	P-Bus receivability input/output
30	NC			Not used (Open)
31	CD5VON	O	C	CD+5V power supply control output
32,33	NC			Not used (Open)
34	$\overline{\text{EMPH}}$	O	C	Emphasis information output
35	NC			Not used (Open)
36	$\overline{\text{XRST}}$	O	C	CD LSI reset output
37	NC			Not used (Open)
38	$\overline{\text{XCE}}$	O	C	CD LSI chip enable output
39	XPCK	O	C	CD LSI clock output
40-43	XPIO3-0	I/O	/C	CD LSI data input/output 3-0
44	NC			Not used (Open)
45	VSS0			GND for ports (make potential the same as that of VSS1)
46	NC			Connected directly to VSS0
47	NC			Not used (Open)
48	VDCONT	O	C	VD power supply control output
49	$\overline{\text{CSENS}}$	I		Flap close sense input
50,51	NC			Not used (Open)
52	$\overline{\text{BSRQ}}$	I/O	/C	P-Bus polling demand output
53,54	NC			Not used (Open)
55	VDD0			Positive power supply of ports (make potential the same as VDD1)
56	NC			Not used (Open)
57	VDSENS			VD power supply sense input
58	TEMP			Temperature sense input
59	DSCSNS			Mechanism SW sense input
60	NC			Not used (Open)
61	$\overline{\text{ADENA}}$	O	C	A/D reference voltage supply control output
62,63	NC			Not used (Open)
64	AVDD			Positive power supply for A/D converter
65	AVREF1			Reference voltage impression for A/D converter
66	AVSS			GND for A/D converter
67,68	NC			Not used (Open)
69-71	NC			Connected to VSS0

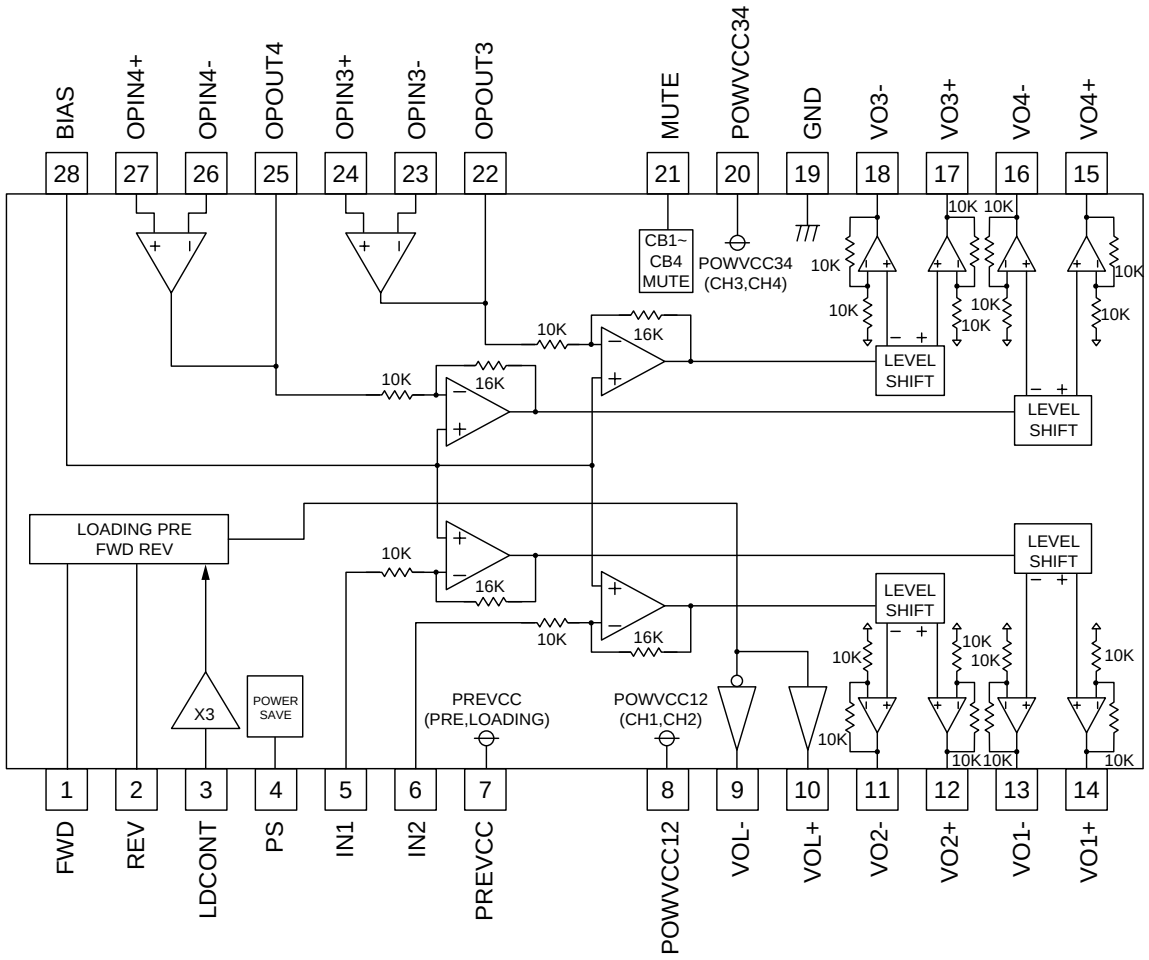
Pin No.	Pin Name	I/O	Format	Function and Operation
72	$\overline{\text{TESTIN}}$	I		Test program start input
73	SPDLFG			FG pulse signal input
74-76	NC			Connected to VDD0
77	$\overline{\text{BRST}}$			P-Bus reset input
78	NC			Connected to VDD0
79,80	NC			Not used (Open)

* PE5238A

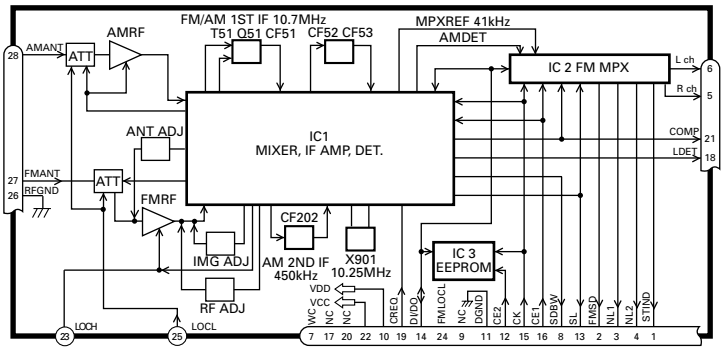


Format	Meaning
C	C MOS

BA5811FM

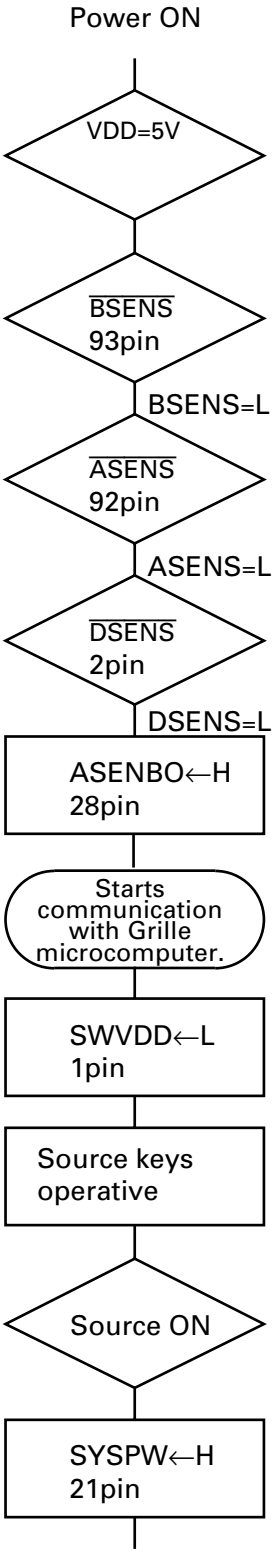


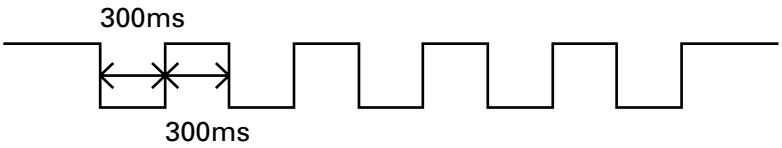
● FM/AM Tuner Unit



No.	Symbol	I/O	Explain	
1	STIND	O	stereo indicator	"Low" when the FM stereo signals are received. To be pulled up to the "VDD" at 47kΩ.
2	FMSD	O	FM station detector	"High" when signals are received. To be pulled up to the "VDD" at 47kΩ Meanwhile, 10kΩ should be used when taking diver FIX trigger from here and "High: 0.9VDD or more" and "Low: 250mV or less". (Should satisfy the diver IC specifications)
3	NL1	O	noise level-1	"High" when noise is received. Output for the RDS. GND at 47kΩ //1,800pF.
4	NL2	O	noise level-2	"High" when noise is received. Output for the RDS. GND at 36kΩ //330pF.
5	Rch	O	R channel output	FM stereo "R-ch" signal output or AM audio output. Add the specified di-emphasis constant.
6	Lch	O	L channel output	FM stereo "L-ch" signal output or AM audio output. Add the specified di-emphasis constant.
7	WC		write control	EEPROM write control. Writing permissible at "Low". Normally open.
8	SDBW	O	SD bandwidth	SD bandwidth signal output. For detection of detuning data for the RDS.
9	NC			Not used
10	VDD		power supply	Power supply pin for the digital section. D.C. 5V +/- 0.25V. Be careful about overlapping noise in the logic section.
11	DGND		digital ground	Grounding for the digital section.
12	CE2	I	chip enable-2	EEPROM chip enable. Active a "Low" To be pulled up to the "VDD" at 47kΩ
13	SL	I/O	signal level	Received FM/AM signal level (strength) output. Connect the specified load resistor and capacitor (10k Ω + 39k Ω //4,700pF)
14	DI/DO	I/O	data input/ data output	Data input/Data output To be pulled up to the "VDD" at 47kΩ
15	CK	I	clock	Clock input To be pulled up to the "VDD" at 47kΩ
16	CE1	I	chip enable-1	AF·RF chip enable. Active at "High" To be grounded at 47kΩ
17	NC			Not used
18	LDET	O	lock detector	Active at "Low". To be pulled up to the "VDD" at 47kΩ
19	CREQ	I	current request	Active at "Low". To be grounded at 47kΩ
20	NC			Not used
21	COMP	O	composite signal	FM composite signal output. r out < 100Ω
22	VCC		power supply	Analog section power supply pin.D.C.8.4V +/- 0.3V
23	LOCH	I	local high	FM local high pin. When seeking local high, apply 5V together with "LOCL".
24	FMLOCL	I	FM local low	FM local low pin. When seeking local low, apply 5V to the base of the NPN transistor with which the specified resistor is being connected to the emitter. Keep it open in case of ordinary marketed models.
25	LOCL	I	local low	FM/AM local low pin. When seeking local low, apply 5V to the base of the NPN transistor. Since this pin is exclusive for AM when the FMLOCL is in use, do not drive it under FM.
26	RFGND		RF ground	Grounding for the antenna section.
27	FMANT	I	FM antenna input	FM antenna input. 75Ω. Serge absorber (DSP-201M-S00B) is necessary.
28	AMANT	I	AM antenna input	AM antenna input. High impedance. Connect to the antenna through an L (LAU type) of 4.7μH.To cope with the power transmission line hums, insert a series circuit consisting of an L (a coil of about 100mH) + R (a resistor of 470 Ω to 2.2kΩ) between the GND.

7.3 OPERATIONAL FLOW CHART





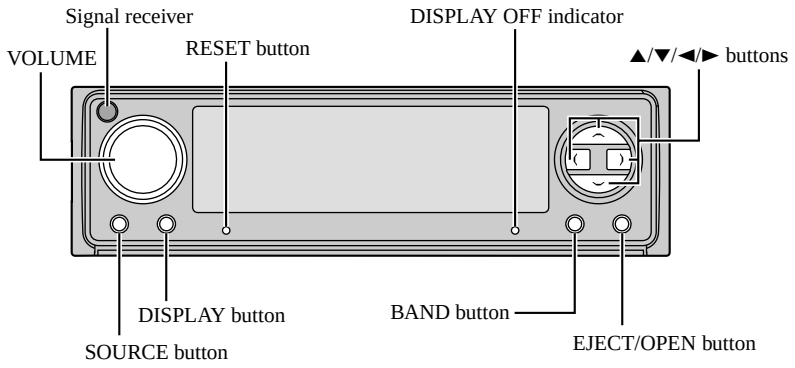
In case of the above signal, the communication with Grille microcomputer may fail.
If the time interval is not 300msec, the oscillator may be defective.

Completes power-on operation.
(After that, proceed to each source operation)

8. OPERATIONS AND SPECIFICATIONS

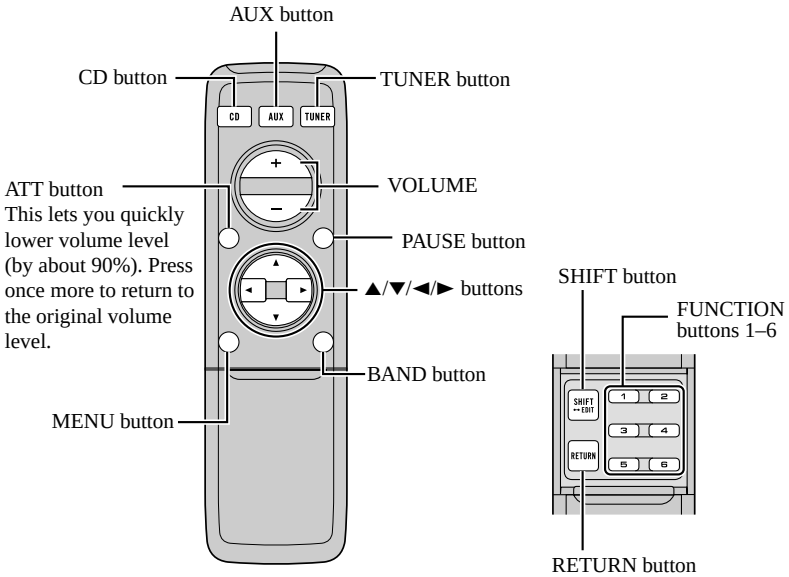
8.1 OPERATIONS

Head Unit



Remote Controller

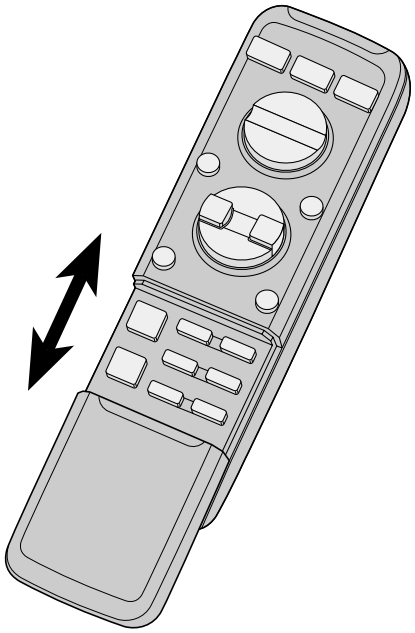
In this system, the available functions and the menu display vary depending on the condition of the remote controller in use. Opening the cover enables the SHIFT, RETURN and FUNCTION buttons 1–6 inside the unit. For more details.



Closed state **Open state**

Opening and Closing the Remote Controller Cover

When the remote controller is opening the cover enables to operate the SHIFT, RETURN and FUNCTION buttons 1–6 inside the unit.



Menu displays with cover open and closed in this system, the available functions and the menu display vary depending on the condition of the remote controller in use.

Remote Controller	Menu display
Cover closed	Closed State
Cover open	Open State

When the Cover is Closed

Closing the cover of the remote controller makes the menu display to the closed state.

Menu display in closed state

Example: Built-in CD Screen

Note:

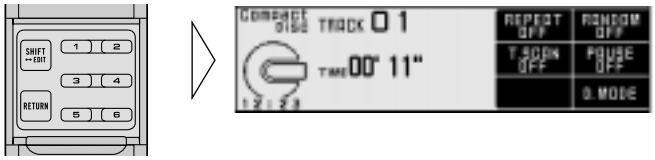
- Menu display in closed state: Current mode and functions which are ON are displayed.

When the Cover is Open

Opening the cover of the remote controller makes the menu display to the open state.

Menu display in open state

Example: Built-in CD Setting Screen



Note:

- Positions of menu items on the display correspond to the positions of FUNCTION buttons 1–6.
- Menu display in open state: Using FUNCTION buttons 1–6, operable functions are displayed.

When the cover is closed in the middle of operation

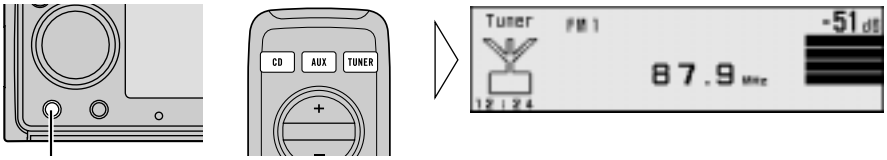
- Closing the cover during operation releases the previous operation and returns the menu display to the closed mode.

To Listen to Music

The following explains the initial of operations required before you can listen to music.

Note:
- Loading a disc in this product.

1. Select the desired source (e.g. tuner).



Each press changes the Source ...

■ Head Unit

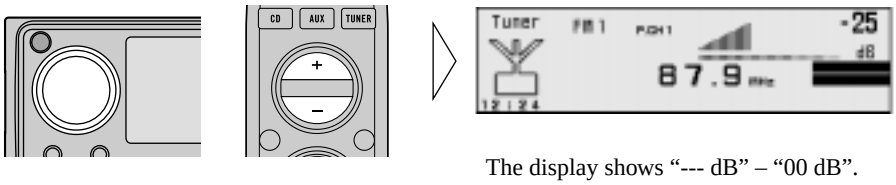
Each press of the SOURCE button selects the desired source in the following order:
Built-in CD player → Multi-CD player → DVD player → TV → Tuner → DAB (Digital Audio Broadcasting) Tuner → External Unit 1 → External Unit 2 → AUX

■ Remote Controller

Each press of the button selects the desired source in the following order:
CD button : Built-in CD player → Multi-CD player → DVD player → OFF
AUX button : External Unit 1 → External Unit 2 → AUX → OFF
TUNER button : TV → Tuner → DAB (Digital Audio Broadcasting) Tuner → OFF

Note:
- External Unit refers to a Pioneer product (such as one available in the future) that, although incompatible as a source, enables control of basic functions by this product. Two External Units can be controlled by this product, although "External" is displayed whether you select External Unit 1 or External Unit 2. When two External Units are connected, the allocation of them to External Unit 1 or External Unit 2 is automatically set by this product.
- In the following cases, the sound source will not change:
  * When a product corresponding to each source is not connected to this product.
  * No disc is set in this product.
  * No magazine is set in the Multi-CD player.
  * No magazine is set in the Multi-DVD player.
  * AUX (external input) is set to OFF.
- When this product's blue/white lead is connected to the car's Auto-antenna relay control terminal, the car's Auto-antenna extends when this product's source is switched ON. To retract the antenna, switch the source OFF.

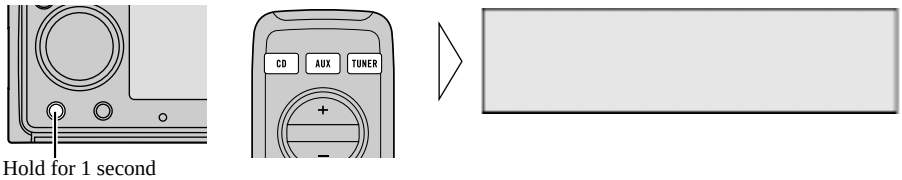
2. Raise or lower the volume.



The display shows “--- dB” – “00 dB”.

Switching Power OFF

- **Turn the source OFF.**



Hold for 1 second

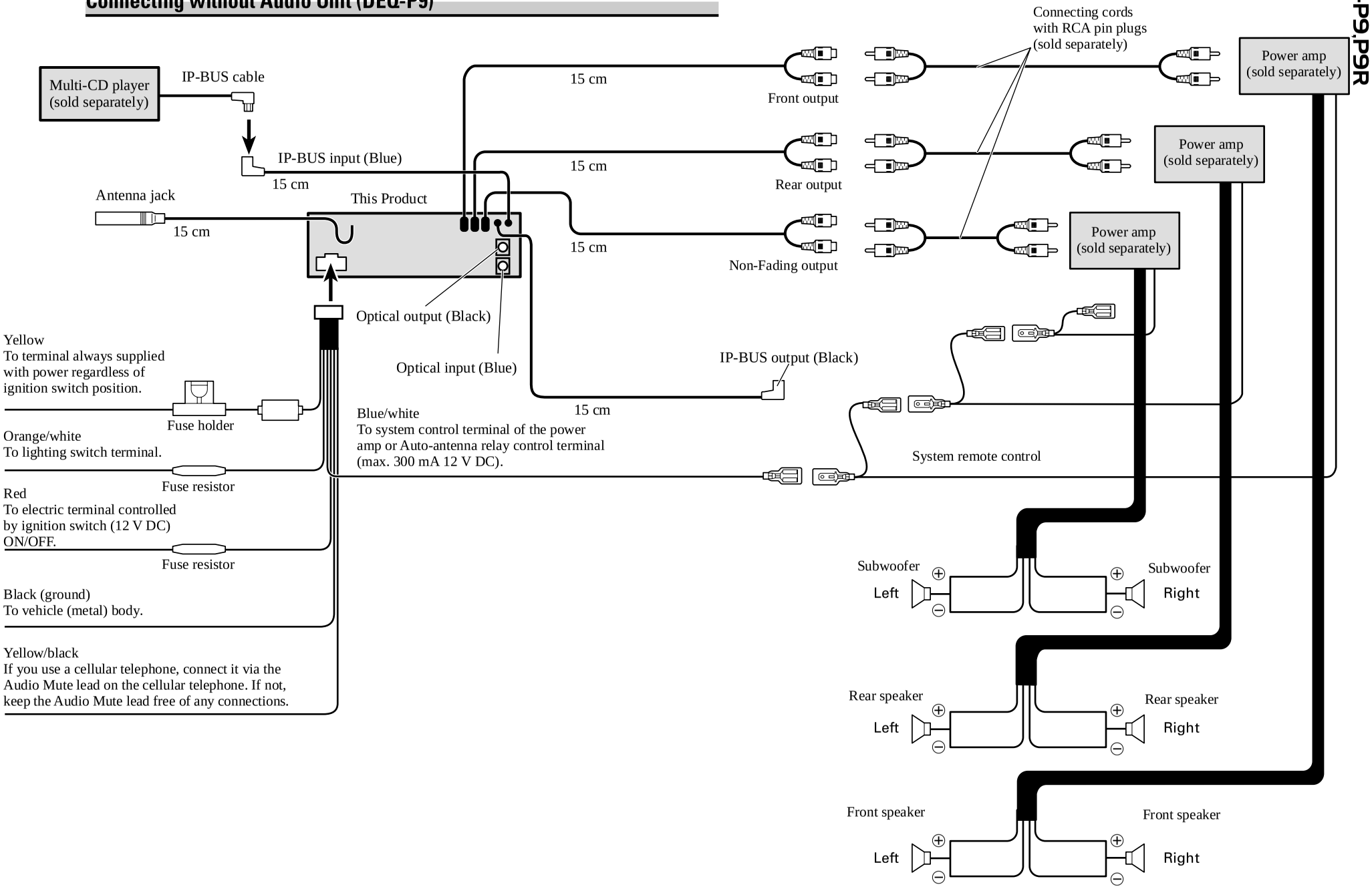
■ Head Unit

To switch the sources OFF, hold down the SOURCE button for 1 second.

■ Remote Controller

Press the button and select the source OFF.
CD button : Built-in CD player → Multi-CD player → DVD player → OFF
AUX button : External Unit 1 → External Unit 2 → AUX → OFF
TUNER button : TV → Tuner → DAB (Digital Audio Broadcasting) Tuner → OFF

Connecting without Audio Unit (DEQ-P9)



8.2 SPECIFICATIONS

● DEX-P9/UC

General

Power source ..... 14.4 V DC (10.8 – 15.1 V allowable)
Backup current ..... 5 mA or less
Grounding system ..... Negative type
Max. current consumption ..... 4.0 A
Dimensions
(DIN)
(chassis) ..... 178 (W) × 50 (H) × 160 (D) mm
[7 (W) × 2 (H) × 6 – 1/4 (D) in.]
(nose) ..... 188 (W) × 58 (H) × 20 (D) mm
[7 – 3/8 (W) × 2 – 1/4 (H) × 3/4 (D) in.]
(D)
(chassis) ..... 178 (W) × 50 (H) × 165 (D) mm
[7 (W) × 2 (H) × 6 – 1/2 (D) in.]
(nose) ..... 170 (W) × 45 (H) × 15 (D) mm
[6 – 3/4 (W) × 1 – 3/4 (H) × 5/8 (D) in.]
Weight ..... 1.7 kg (3.7 lbs)
Maximum preout output level ..... 4.0 V
Preout impedance ..... 100 Ω
Tone controls
(Bass)
Frequency ..... 100 Hz
Gain ..... ±8 dB
(Treble)
Frequency ..... 10 kHz
Gain ..... ±8 dB
Digital input ..... Optical input
Sampling frequency ..... 44.1 – 96 kHz
Digital output ..... Optical output

CD player

System ..... Compact disc audio system
Usable discs ..... Compact disc
Signal format ..... Sampling frequency: 44.1 kHz
Number of quantization bits: 16; linear
Frequency characteristics ..... 5 – 20,000 Hz (±1 dB)
Signal-to-noise ratio .... 107 dB (1 kHz) (IHF-A network)
Dynamic range ..... 98 dB (1 kHz)
Number of channel ..... 2 (stereo)

FM tuner

Frequency range ..... 87.9 – 107.9 MHz
Usable sensitivity ..... 9 dBf
(0.8 µV/75 Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity .... 15 dBf (1.5 µV/75 Ω, mono)
Signal-to-noise ratio ..... 70 dB (IHF-A network)
Distortion ..... 0.3% (at 65 dBf, 1 kHz, stereo)
Frequency response ..... 30 – 15,000 Hz (±3 dB)
Stereo separation ..... 40 dB (at 65 dBf, 1 kHz)
Selectivity ..... 70 dB
Three-signal intermodulation
(desired signal level) 30dBf
(two undesired signal level: 100 dBf)

AM tuner

Frequency range ..... 530 – 1,710 kHz (10 kHz)
Usable sensitivity ..... 18 µV (S/N: 20 dB)
Selectivity ..... 50 dB (±10 kHz)

Note:

- Specifications and the design are subject to possible modification without notice due to improvements.

● DEX-P9R/EW

General

Power source ..... 14.4 V DC (10.8 – 15.1 V allowable)
Backup current ..... 5 mA or less
Grounding system ..... Negative type
Max. current consumption ..... 4.0 A
Dimensions
(mounting size) ..... 178 (W) × 50 (H) × 160 (D) mm
(front face) ..... 188 (W) × 58 (H) × 20 (D) mm
Weight ..... 1.7 kg
Maximum preout output level ..... 4.0 V
Preout impedance ..... 100 Ω
Tone controls
(Bass)
Frequency ..... 100 Hz
Gain ..... ±8 dB
(Treble)
Frequency ..... 10 kHz
Gain ..... ±8 dB
Digital input ..... Optical input
Sampling frequency ..... 44.1 – 96 kHz
Digital output ..... Optical output

CD player

System ..... Compact disc audio system
Usable discs ..... Compact disc
Signal format ..... Sampling frequency: 44.1 kHz
Number of quantization bits: 16; linear
Frequency characteristics ..... 5 – 20,000 Hz (±1 dB)
Signal-to-noise ratio .... 107 dB (1 kHz) (IEC-A network)
Dynamic range ..... 98 dB (1 kHz)
Number of channel ..... 2 (stereo)

FM tuner

Frequency range ..... 87.5 – 108 MHz
Usable sensitivity ..... 9 dBf
(0.8 µV/75 Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity .... 15 dBf (1.5 µV/75 Ω, mono)
Signal-to-noise ratio ..... 70 dB (IEC-A network)
Distortion ..... 0.3% (at 65 dBf, 1 kHz, stereo)
Frequency response ..... 30 – 15,000 Hz (±3 dB)
Stereo separation ..... 40 dB (at 65 dBf, 1 kHz)

MW tuner

Frequency range ..... 531 – 1,602 kHz (9 kHz)
Usable sensitivity ..... 18 µV (S/N: 20 dB)
Selectivity ..... 50 dB (±9 kHz)

LW tuner

Frequency range ..... 153 – 281 kHz
Usable sensitivity ..... 30 µV (S/N: 20 dB)
Selectivity ..... 50 dB (±9 kHz)

Note:

- Specifications and the design are subject to possible modification without notice due to improvements.